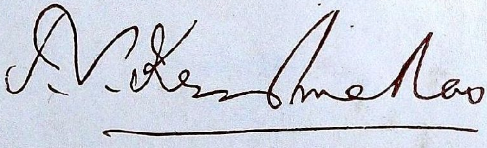

COMPARATIVE STUDY

OF

THE MARMAS

BY

UBHAYA VAIDYA PRAVEENA

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1941.

PREFACE.

As I began the study of Sushruta Sareera, (Ayurvedic Anatomy and Physiology) for the first time, an idea struck to my mind that some special subject is to be taken up for a comparative study and the same interpreted in terms of modern Anatomy and Physiology. Ere long, "Marmas" attracted my attention. The main subject, is to show in a way that even in those ancient days, Ayurveda had developed the science of Anatomy, Physiology and Surgery, etc., based on sound scientific principles. A study of the Marmas may also offer the modern surgeon, useful hints and even help him in treating accidents and deciding the seats of incisions for operations, if he minds to approach the subject sympathetically.

The immediate stimulus for bringing this booklet hurriedly into print is the occasion when I had to compete for a prize named "The Harjimal Dalmia Memorial Gold Medal and purse." I attempted to the best of my ability to interpret and explain the original Sanskrit texts, in terms of modern Anatomy and physiology, though in a few placed I have been faced with some difficulties.

I request to be excused for any shortcomings and I shall feel grateful to receive any valuable suggestions. I wish to express my indebtedness to my friends Ayurvedacharya Dr. Sri N. Madhava Menon, A. M. A. C. (Madras) for his valuable suggestions, and Sri K. Padmanabha Iyer, B.A. of the Samajam Hospital, (Shoranur) for helping me in procuring the Malayalee scripts relating to the treatment of Marmas. My thanks are also due to the artist and my other friends who gave me their best co-operation in the preparation of this book.

MADRAS.
18th December, 1937.

P. V. K.

Preface to the 2nd Edition.

First let me thank all those eminant educationists, reputed Ayurvedic Physicians from all parts of india for the good opinions they sent to me about this book. True copies of some of them are added at the end of the book. I need hardly say that these gave me a good encouragement.

Let me mention now that "The Harjimal Dalmia Gold Medal and Purse" advertised for the best work on Ayurveda for 1937, for which I competed, the gold medal was awarded to me only soon after publication of this Book (Vide publication in 'Hindu' dated 9th January 1938.) copy of which is inserted at the end. Along with the above gold medal a purse of Rs. 250/- was also presented to me through Ayurvedacharya Pandit Shivasarma of Lahore, President of the All-India Ayurvedic Congress.

Appreciation of the book came not only from all parts of India, but also from other Continents as well. A review by Dr. FRANZ THIERFELDER, Secretary of the German Academy Munich (Germany) in the "Munich Medical Weekly" appreciating this work was received by me before the War.

As the copies of the 1st edition are exhausted, and some orders from other Continents (America) for copies of this book are pending, I had to reprint the book. In doing so, I had to revise certain portions and also add additional matter from reputed Ayurvedic Texts. I also added five additional plates illustrating the Dhara treatment which is very popular in South India. The Plates are self-explanatory.

I wish again to express my sincere thanks to Ayurvedacharya Dr. Sri N. Madhava Menon and also to Ayurvedacharya Dr. Sri M. Viswesvara Sastry, and Dr. Sri Mallikarjana Rao, Chief and Assistant Medical Officers of Ayurvedic Department in the Government Indian Medical School, who helped me wholeheartedly in bringing out this 2nd. edition.

24—2—1941.
Maha Shivarathri Day,
Madras.

P. V. K.

"HINDU", Madras, dated 9th January 1938.

Year's Best Work in Ayurveda.

GOLD MEDAL FOR SOUTH INDIAN.

(Associated Press of India.)

Lahore, January 7th.

The Harjimal Dalmia Gold Medal and Purse for the best works on Ayurveda published during 1937 has been divided between two authors thus :—

Dr. P. V. Krishna Rao of the Government School of Indian Medicine, Madras : a gold medal (Rs. 100) and a purse containing Rs. 250 for his work on the Comparative Study of the Marmas. This book was specially written for the prize and has been classed amongst the year's best works on Ayurveda.

Dr. Dhirendra Nath Ray of Calcutta a purse (Rs. 250) for his "Principles of Dridosh in Ayurveda". This book has already won the Sir J. C. Bose prize of the Madras University.

SOME OPINIONS.

SIR MOHOMED USMAN, K.C.I.E., Teynampet Gardens,
Mylapore, Madras, 19—1—'38.

Dear Dr. Krishna Rao,

I am writing to thank you for sending me your book on the Comparative Study of the Marmas. I simply admire the knowledge of the ancient Hindus in the field of Ayurveda. I congratulate you on the good work you have done on this subject. The book is very interesting.

With kindest regards,
Yours sincerely,
(Sd.) Md. USMAN,
Ex. Governor of Madras.

The book "The Comparative Study of the Marmas" is really a master piece. It is a beautiful book and is beautifully got up. The illustrations which are most selected and suitable make the difficult subject very lucid and interesting. It is very useful for the practitioners both eastern as well as western. It is only this kind of study which will bring our old system of Ayurveda into prominence and will show to the world the true worth of Ayurveda. I congratulate the author for his successful effort. I hope he will be able to bring out many more such books for the benifit of the profession.

(Sd.) KAVIRAJ PRATAP SIMHA,
Rasayanacharya,
Ex President,
All India Ayurvedic Conference.

Benares,
Dated 28—1—1938.

I have read the book on 'Marmas' by Dr. P. V. Krishna Rao, with interest and I find that the author has taken great pains to collect and edit the information contained in ancient books. He has made it easy for further research on these lines.

I wish the author every success in his efforts.

(Sd.) DR. A. LAKSHMIPATHI, B.A., M.B. & C.M.,
Bhishagratna,
43, Harris Road, Pudupet, Madras.
3—1—1938. Ex-President, All India Ayurvedic Conference.

I have read your book "Comparative Study of the Marmas". It really arouses interest and one can hardly lay aside the book without finishing the same. The arrangement is attractive, the diagrams most interesting and above all, the treatment of diseases is very useful and absolutely scientific. The "Dhara" treatment whch is most practised in Southern India would be of much interest and importance to the medical world if it is practised. The study of the Marmas in its right perspective would be of much use to modern surgeons as well. The athletes of India know the importance of the Marmas, though emperically.

(Sd.) G. G. GUNE,
President Elect,
All India Ayurvedic Conference to be held at
24—12—1937. Nagpur in 1938.

Calcutta, 14th March 1938.

Dear Dr. Krishna Rao,

I received your book named "Comparative Studies of the Marmas" only the other day and have gone through it with great pleasure. You have taken considerable pains to locate the 'Marmas' and to identify the anatomical structures to be found in them, which you have pointed out in the Diagrams specially prepared for this purpose. Your labours are laudable. On the whole, however, the work shows your deligenee and research which I certainly appreciate.

Yours faithfully,
(Sd.) MAHAMAHOPADYAYA KAVIRAJ GANANATH
SEN SARASWATHI, M.A. L.M. & S.
Ex-President, All India Ayurvedic Conference.

Trivandrum, 28th March 1938.

Dear Doctor,

I am so sorry I was not able to write to you earlier. I have gone through your book with care and interest and I am glad to record that I have found your analysis correct and illuminating. I am of opinion that attempts of this sort, and this sort alone, can help to re-establish the scientific and rational character of Ayurveda in the eyes of the ultra critical modern world. I sincerely congratulate you on the production and strongly commend your patience and perseverence.

From my own experience I am of opinion that every branch on Ancient Indian culture is founded on very firm and rational foundation and awaits only interpreters like you capable of rendering the old texts into modern terminology. Such treatment, in my humble opinion, is urgently required in other fields as well, notably perhaps, in respect of Dharmasastras etc. When correctly interpreted it may surprise the modern world to know that they have still much to learn from the pioneers of human culture, the ancient Indians.

Wishing you continued success in similar enterprises,

Yours faithfully,
(Sd.) DR. L. A. RAVI VARMA, M.B.C.M., D.O.M.S.,
President, Ayurvedic Section,
All India Oriental Conference.

Kaviraj Dhirendra Nath Ray, M.Sc.,
Kavishekhara.

51, Chittaranjan Avenue,
(Bowbazaar)
Calcutta, 23—3—1938.

My Dear Dr. Rao,

Allow me to heartily congratulate you on your getting the Dalmia Medal and Prize of Lahore.

* * * *

The Ayurvedic scholars, all over India, should be grateful to you for your excellent treatise on one of the most intricate and difficult problem of Ayurveda. It is a subject which had so long been understood by very few people. Your book will help the students a great deal in understanding the subject.

Yours sincerely,
(Sd.) D. N. RAY.

COMPARATIVE STUDY OF THE MARMAS

BY

DR. P. V. KRISHNA RAO, B.A., M.B.B.S., F.I.M.

I am glad to make Ayurvedic as well as Allopathic practitioners know the publication of the above work, edited by Ubhaya Vaidhya Praveena P. V. Krishna Rao. Herein 107 Marmas have been explained. The author has compiled his work in so lucid and systematical arrangement that no difficulty is experienced by the readers to pick out facts and figures of the subject. Doctor first names the Marmas, then the situation it holds in the human body, thirdly its Anatomical structure corresponding to the Marmas and lastly sequence and treatment. Though generally, we find a referance to the treatment for Marmas along with Non-Marmas in old works, such as Charaka, Sushrutha, Ashtangasangraha and so on, the treatment for Marmas expounded herein is popular in Southren India, but is not exposed as yet elsewhere. The work is unique of its kind and the writer has taken pains to exhibit ancient Rishi's knowledge of human physical body on the lines of modern Anatomical Terminology. The author says in the preface that he had to face difficulties in comparing Marmas in Ayurveda with modern Anatomical Terminology and tracing out where these Marmas are located in the human body in terms of modern Physiology and Anatomy. Here, I have to concur with what the author has confessed above and I find it to be reasonable - especically, Marmas such as Mathruka, Sringataka Phana and Adhipathi where the author must have felt the difficulties.

On the whole, in my opinion, the treatise may be introduced not only in Ayurvedic institutions, but also in modern Medical Institutions, side by side with surgery to benefiit the sufferers.

Mangalore, (Sd.) M. V. SHASTRI,

D/ 8—1—1938, Ayurveda Bhushana.

Review of the "Hindu", Madras, dated 27—2—1938 by

Vaidyaratna M. Duraiswamy Iyengar.

There is a vast and valuable treasure hidden in the science of Ayurveda waiting to be explored and the book under review is a praiseworthy effort in this direction. The subject of "Marmas" was in ancient times considered one of the principal items to be studied minutely by those who specialised in particular branches of salya and Salakya tantras (surgery and optic sciences.)

A 'marma' is a very delicate part, where a number of tissues or organs meet together and is accounted to be a vital point in the human body; any injury to that part makes the organ senseless or functionless or causes deformity or severe haemorrhage or even collapse and death sooner or later. Not only medical men but also the lawmakers of ancient India thought the study of this subject very necessary and included the science of 'marmas' in the Smritis as part and parcel of medical jurisprudence (Yajnavalkya, III, 102, etc.)

This work on the Ayurvedic system of Anatomy and Surgery has a special value as the first attempt of its kind in our present-day medical literature, this vital subject being omitted even in the "Pratyaksha-Sarira" of Dr. Gananath Sen of Calcutta. The author has extracted the relevent passages from a chapter of the Susruta Samhita with translation in English of the text extracted. He has taken pains to describe, in the light of modern anatomy, the 'vyuham' or the complicated structure of each 'marma' with its corresponding anatomical parts (with their names according to the western system) related to various muscular, bony, nervous, vascular and other internal and external organs of the part where a particular 'marma' is said to be situated. The author then prescribes medicines and methods of treatment for each affected 'marma'. These are derived from private sources and not from any standard authentic works, and I do not know how far the learned Ayurvedists would recognise and approve of this part of the book.

* * * * * * * *

The colour plates of illustrations showing the points of various marmas with their anatomical structure according to the western system should be very useful.

The book though small in compass, deals with a great subject, and the author's efforts to popularise the valuable teachings of the ancients deserve appreciation.

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INTRODUCTION.

Ancient Hindus developed all the sciences to their fullest scope, including the science of Ayurveda. The Ayurvedic science reached its zenith in the period of Asoka and other Buddhist princes and also spread to far off countries like, Egypt, Greece, Rome and Arabia. But there was a set back to this glory from 300 B. C. onwards owing to the continuous invasions of India by Greeks, Scythians and Hunas for over hundred years, causing blood shed and incendiarism resulting in the destruction of the literature of all Indian sciences. Subsequently, it was during the period of Vikramadithya (about 5th century A. D.), there was an attempt to revive the lost sciences by getting them re-written. But, again after the 11th century A. D., all these books met the same misfortune of being destroyed by successive Mohammedan invaders, leaving us no legacy except a few chips of the old blocks here and there which form the source and inspiration for modern investigations. In ancient literature including the Vedas and the old Buddhist works, references to Anatomy are not wanting. Quotations of descriptive Anatomy have been found in commentaries written over thousand years ago on surgical works like Bhojasamhitha. Dr. Hoernle in the preface to his valuable book, 'Medicine of ancient India', observes, "Probably it will come as a surprise to many, as it did to myself, to discover the amount of anatomical knowledge which is disclosed in the works of the earliest medical writers of India. Its extent and accuracy are surprising, when we allow for their early age—probably the sixth century before Chirist and their peculiar methods of definition."

The Ayurvedic science was divided from the treatment point of view into eight parts (Ashtangams) namely, Kayachikitsa (general treatment), Balachikitsa (treatment of the diseases of women and children), Grahachikitsa (psychotherapy), Oordhwanga chikitsa (treatment of the eye, ear, nose and throat), Salya chikitsa (surgery), Damshtra chikitsa (toxicology), Jarachikitsa (science of rejuvenation) and Vrushachikitsa (science of sexual vigour). It was left to the great sage Susruta to specially study and practice one of the above branches namely Salyathanthram (surgery), after equipping himself with a thorough knowledge of the Ayurvedic Physiology and Anatomy (Sareera). We are indeed grateful to him for his invaluable work on this subject. The knowledge of Anatomy formed a part of the preliminary courses in the study of Medicine and Surgery in the past.

Susruta stated that the study of anatomy would be necessary by a thorough dissection of the dead body.

Sodhayithwa mruthamsamyak drashtavyongavinischayah.

(5th Chapter, Susruta, 48th. Sloka).

Besides, the method of preparation and the detailed technique of dissection in those days were definitely mentioned by him. Dissection was also enjoined by Vagbhata and there are evidences that it was in practice at that time. Briefly comparing the old Ayurvedic Anatomy with the modern, there are points where they do not *apparently* tally, for example, regarding the number of bones in the body. They are said to be 360 by Atreya, 300 by Susruta, whereas, they are about 200 according to the modern Anatomy. But this so called discrepency has been clearly explained as follows, by Dr. Hoernle in his "Medicine of Ancient India" (part I. Osteology).

"This large excess is principally due to the fact that (besides including the teeth, nails and cartilages) they counted prominent parts of the bones such as are now known as 'processes' or 'protuberances', as if they were separate bones.............. ...."

Taking another instance, the layers of the skin, 1. Avabhasini, 2. Lohitha, 3. Swetha, 4. Thamra, 5. Vedini, 6. Rohini and 7. Mamsadhara, as described in the Ayurvedic texts, correspond to its microscopic layers according to the Western Physiology.

Further, in some aspects, Ayurveda has been a source of knowledge, made use of, by the modern scientists. It may be mentioned here, that so many centuries ago, Ayurvedic Anatomy (Sareera) described Embryology to start with, while this subject has been only recently clubbed with modern Anatomy.

Marmas were also included in Sareera, because the location of the same, according to the surface anatomy was found necessary in the practical treatment, both medically and surgically.

Marmavignanam (the knowledge of the Marmas), as existing in Ayurveda, had fallen long into oblivion, regarding its practical application as an art like many other branches of Ayurvedic Literature.

What is a Marma? The word Marma is derived from the Sanskrit root, 'Mru', 'Marane' and it applies to a place of vital importance in the body which, if injured, results in serious consequences, or death sooner or later.

Jeevasthananthu marmasyath.

(Rajanighantu).

Susruta defines the Marma as a place where mamsa, sira, snayu, asthi and sandhi are present. It is said that

they are the seats of concentration of pranic currents. Dalhana opines that in a Marma, all the above mentioned structures should find a place and the name of the marma is determined by the predominent structure out of these. But Haranachandra Chakravarthi says that the Marma can be formed by the presence of one or more of the above structures.

Yathasambavam vyasthasamasthanam mamsadeenam melanani.

It was also told by Susruta,

Soma marutha thejamsi rajas-sathwa-tamamsicha marmasu prayasah pumsam bhoothathmachavathishthathe marmaswabhihatho thasmath najeevanthi sareerinah.

(Susruta, Sareera, 7th. Chap. 75th. Sloka).

meaning thereby that the Marmas are the places for Soma (Kapha), Marutha (Vayu) and Tejas (Pitta) representing the three Doshas (Physical powers), Rajas, Thamas aud Satwa, the three Gunas (Mental forces) and the Bhootatma (Supreme power or force controlling the body and mind). Therefore injury to the Marmas results in death.

Considering the origin and the practical utility of Marmas, Charaka gives great importance to three Marmas namely Vasti, Hrudaya and Siras (head) out of 107 marmas and these are included in the ten Pranayatanams (the seats of life). He considered them of paramount importance from the treatment point of view, in as much as the vitiated doshas affect the Marmas and cause diseases which may prove fatal. Surgically it is of more practical use, due to the fact that injury to any of the Marmas, may result in death immediately or later by complications or end in deformity of a particular part of the body. Injuries of an

equally severe nature anywhere else in the body need not necessarily prove fatal, provided the marmas in these parts are intact. Surgeons of Ancient India laid down the rule that in a case of surgical operation, the situation and the dimension of each local marma should first be studied well, and the incision for operation should be made in such a way as to avoid even the edge of a marma. Hence all the marmasthanas should be carefully avoided in all surgical operations.

The knowledge of the marmas was practically made use of in ancient warfare and in hunting after wild animals, by hitting the enemy or the animal respectively, aiming at the marmas with the arrows. This Science is also practised in the art of wrestling in some parts of India and Japan (Ji Ju Tsu). I may add that the science of Marmas and its practical application have been tried in South India even on animals like elephants, for controlling them very easily and effectively.

Broadly we can classify the Marmas from their sthoola and sookshma aspects.

The Sthoola :—The anatomical structures and certain other physiological processes can either be seen macroscopically (by naked eye) or demonstrated microscopically or by other elaborate laboratory methods.

The Sookshma:—The sookshma (subtle physiological functions) aspect of the marmas can only be made known by 'Apthavakya' and understood by 'Anumanapramanam'. For instance the subtle existence of the three Gunas and the Pancha Bhootas can only be understood by inference. Similar is the case with some vital processes in modern Physiology and Pathology inspite of the most up-to-date laboratory equipments.

Marmas are also classified under three heads, according to the (i) Situation, (ii) Structure, and (iii) Sequence.

Situation:—(1)	Head	...	37
(2)	Back	...	14
(3)	Chest	...	9
(4)	Abdomen	...	3
(5)	Extremities (Superior 22 and Inferior 22)	...	44
	Total	...	107

Structure :—(1)	Mamsa Marma	...	11
(2)	Sira Marma	...	41
(3)	Snayu Marma	...	27
(4)	Asthi Marma	...	8
(5)	Sandhi Marma	...	20
	Total	...	107

Vaghbata brings in another classification of marmas namely 'Dhamanee Marma' and under this he mentions the Guda, Apastambha, Vidhura and Sringataka Marmas.

Sequence:—(1)	Sadyah Pranaharam	...	19
(2)	Kalantara Pranaharam	...	33
(3)	Visalyaghna	...	3
(4)	Vykalyakaram	...	44
(5)	Rujakaram	...	8
	Total	...	107

Also, particular Bhuthas are predominating in particular marmas and prognosis of the injured marma depends on the nature of the predominent Bhuta. The following table illustrates the same.

Marma	Bhutamsa	Sadhyasadhyatha (prognosis).
1. Sadyahpranahara	Agneya.	Kshayam of agni guna and death.
2. Kalantharapranahara	Soumya and agneya.	Death due to immediate kshayam of agni and gradual kshayam of somagunam.
3. Visalyaghna ...	Vayu ...	Death due to the extraction of salya and escape of Vayu.
4. Vykalyakara ...	Soumya.	It does pranavalambana and only causes vykalya (disability or deformity).
5. Rujakara ...	Agni and vayu or panchabhutas	Causes only pain.

Charaka also makes mention of 107 Marmas, but he gives prominance only to three of them, the head, the heart and the bladder. The Marmas in the trunk are more important than those in the extremities and out of the marmas in the trunk, the head, the heart and the bladder are most important.

The Marmas may be affected by external injuries or by the direct vitiation of the Doshas, Vata, Pitta and Kapa.

So, great care must be taken to protect the Marmas not only from external injuries but also from the vitiated Doshas especially from vata. Charaka deals mainly with this aspect.

For instance he describes the general diseases of the Marmas as Udavartha, Mootrakricha, Asmari, Hridroga, Peenasa, Siroroga, Mukharoga, Karnaroga, etc., and also describes the treatment to be adopted.

Technical terms explained :—

Nadee, Sira and Dhamani are used to denote any vessel or nerve in the body.

Nadee is often used to denote either nerve, fibrous tissue or any vessel. Snayu is used for fibrous tissue, nerve, ligament or tendon.

Mamsa is taken for muscle, Asthi for bone, Tarunasthi for cartilage and Sandhi for joint or confluence of any two stuructures.

The explanation of the above terms could be understood practically by application to modern Anatomy and it is also a known fact that the terms Nadee, Sira, Dhamani and Snayu are not clearly defined in the existing original Ayurvedic texts. The term Sira is used by Charaka to denote a vessel.

दश मूलसिरा: हृत्स्था सर्वं सर्वतो वायु:

Dasamoola sirah hrusthah sarvam sarvatho vapuhu rasathmakam vahathyojah.

रसतात्मक वहत्योज: (Charaka).

Susruta states while describing a Sira,

तासां मूलसिरा: चतुर्विंशत। तासां वातवाहिन्य:

Thasam moolasirah chathwarimsath thasam vathavahinyah

दश पित्त वाहिन्य: दश दश कफवाहिन्य:

dasa, pitha vahinyah dasa, dasa kapha vahinyah, dasa rakta vahinyah.

दश रक्त वाहिन्य: (Susruta.)

From the above, it is seen that there are 10 vatavaha siras in the body and while describing the functions of vatavaha siras, he says:—

Kriyanamaprатheeghatham amogham buddhi karmanam
Karothyanyan gunamschapi swassirah pavanascharam.

(Susruta).

In modern Physiology, the above function belongs only to nerves but not to any other vessel or structure. So it is clear that the word sira is used to denote a nerve also.

The word Nadee is used by Susruta to denote an artery in the following:—

Mathusthukhalu rasavahayam nadyam garbanadee prathibaddha.

(Susruta).

Charaka classifies the sira, dhamani, rasavahinee, nadee, etc., under the 'Srotas' as follows:—

Srotamsi sirah dhamanyah rasayanyah rasavahinyah nadyah pandhanah margah sareerachidrani samvrutha-samvrutasthanani asayah nikethaschethi sareeradhathwavakasanam lakshyalashyanam namani bhavanthi.

(Charaka-Srotovimanam).

I have tried to demonstrate the location of the various marmas in the body with the figures II to VII inserted, which illustrate their corresponding structures as far as possible, according to modern Anatomy and physiology.

Treatment of the Marmas was not specially dealt with in any one of the old Ayurvedic texts. As this art is successfully practised in South India, I could gather the following information regarding the treatment of Marmas.

The treatment is based on the general principles of snehanam (counteracts the rookshatha), jeevaneeyam (counteracts maranam), brumhanam (counteracts sosham), vatapittaghnam (counteracts the provoked vatha and pitta), ropanam (for healing the wound) and stambhanam (as opposed to sraavam or vegam), by way of external applications as abhyanganam, pichu, lepam, anjanam, sekam (dhara) and sirovasthi.

The technique of sekam has been specially developed into what is called the 'Dhara treatment.' Dhara may be done either to the whole body (Sarwanga-dhara) or to a particular affected part (pratyanga-dhara). Dhara is recommended in mental diseases, in the diseases of the ear, nose and eyes, emaciation, general debility, hemiplegia and other vatharogas and it is extensively practised in injuries to the Marmas. In a case of paravasyam which results from an injury to the Marma, sirodhara is beneficial. Sarwanga-dhara is done in cases of multiple injuries to the Marmas.

Different dravyas are used for different doshas. In vata predominence, thailams, ghritams and kashayams prepared with vatahara drugs like bala, rasna and erandamoolam are used. In pitta predominence, medicated milk, stanyam, cocoanut water, rose water and kashayams prepared with pittahara dravyams like amalakee and chandanam are indicated. In kapha predominence, medicated thakram, kanjikam and kashayams prepared with kaphahara drugs like mahapanchamoolams and rasna are used. Vessels (dhara-patra) of various metals are used according to the doshas, but an earthern vessel (thridoshaghna) is used in preference to others. Morning hours are more suitable for this treatment which is carried on

from half to one and a half hours a day. The period of treatment varies with the nature of injury to the Marma.

Dhara acts as a sodhana and ropana in the case of wounds and as dosha-samanam generally. The apparatus necessary for conducting dhara, consists of a wooden plank (droni) preferably made of vishamusti (Nux-vomica tree), which acts as vatapittaghnam and a vessel for holding the particular dravyam used, with a wick hanging down through an aperture at the centre of its bottom. Three to six attendants are required to conduct the dhara, (Vide Fig 1.)

Additional illustrative plates explaining in them the various methods of treatment by Swedanam Fig. II, Pothichal Fig. III, Dhara Chikitsa Fig. IV, Navarakkizhi Fig. V, and Shirovasti & Urovasthi Fig. VI. are inserted.

The internal administration of kashayams, ghritams and other preparations according to the particular doshas, is dealt with at the end of each marma, adopting the general principles of treatment mentioned above.

Preparations called Marma Gutika (Brihath and Laghu), whose precriptions are given in detail at the end of the book have been found to be very useful when applied externally in all inflammatory conditions at the region of the Marmas.

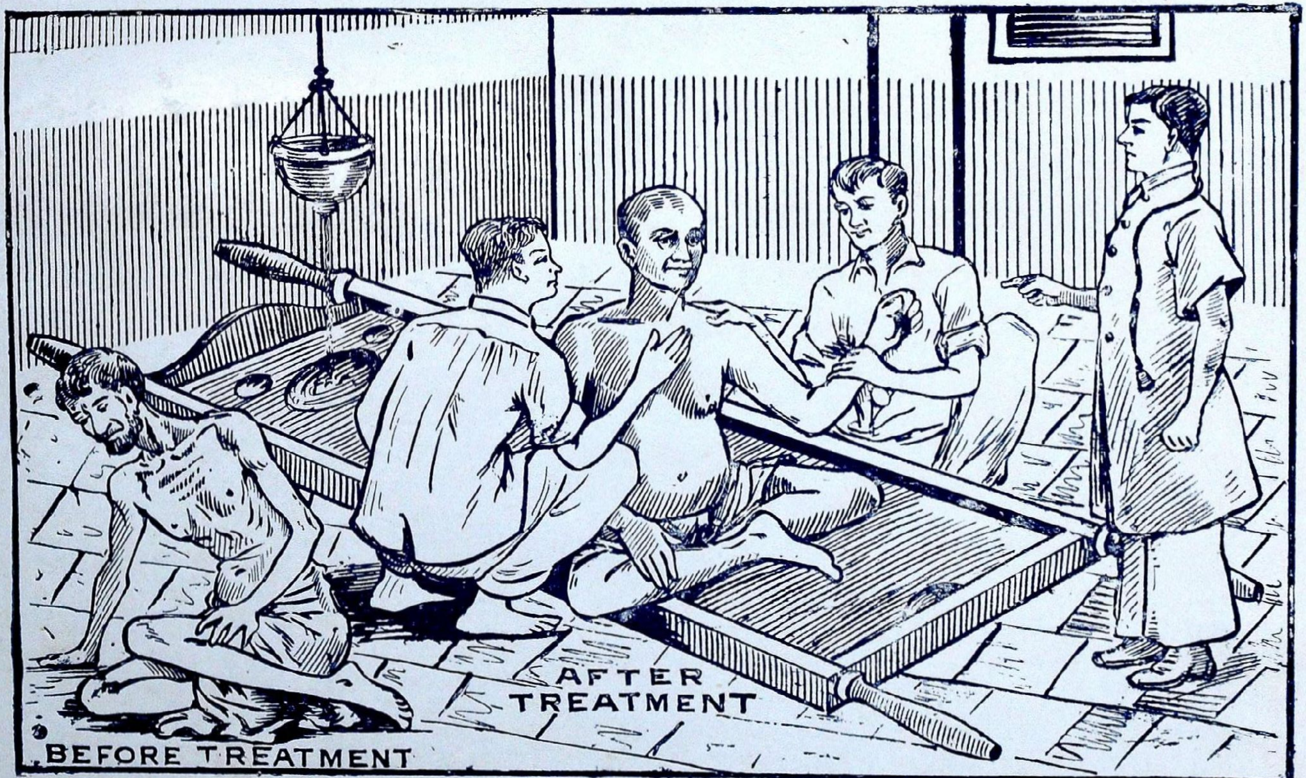
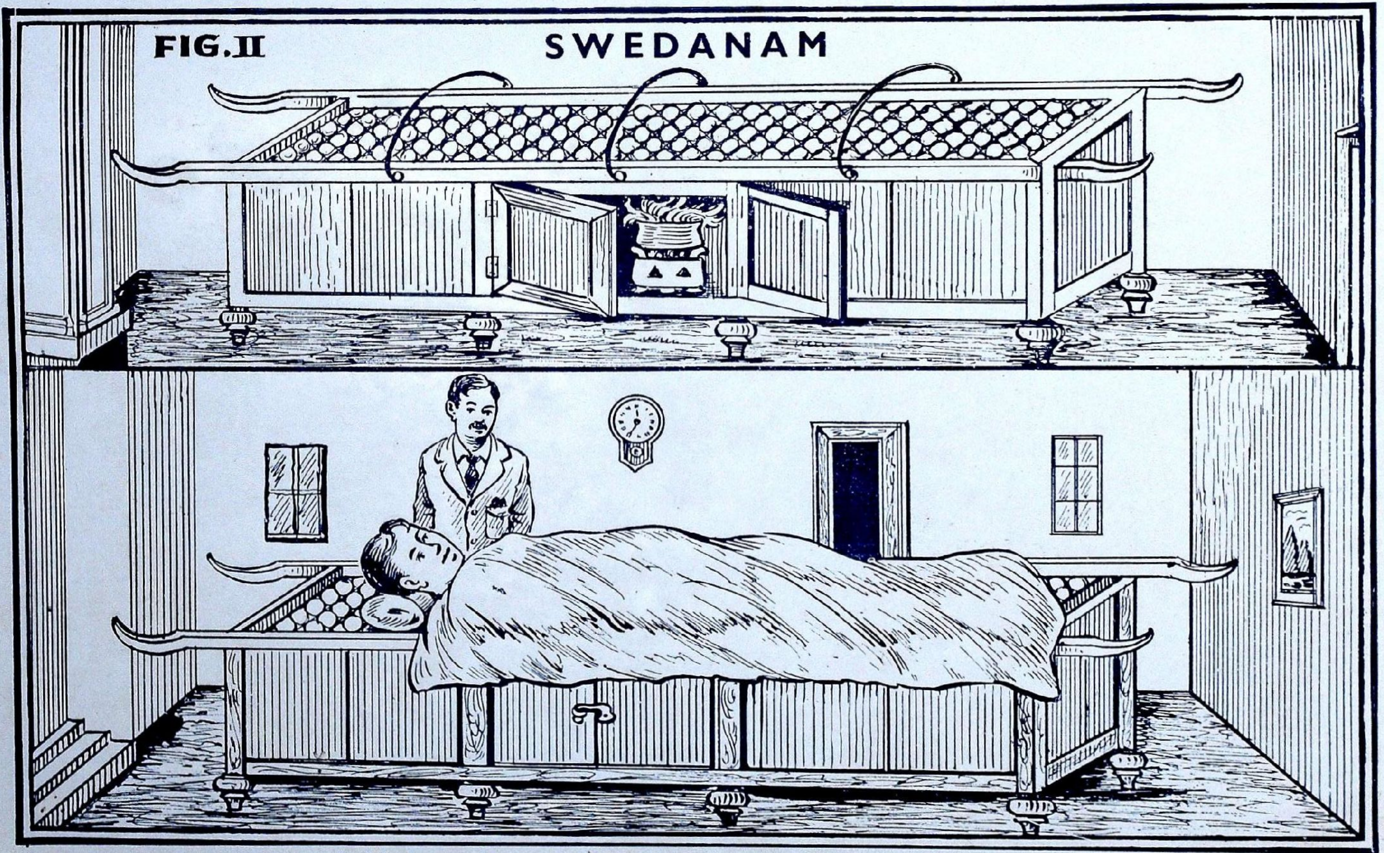


Fig. I.—DHARA TREATMENT.

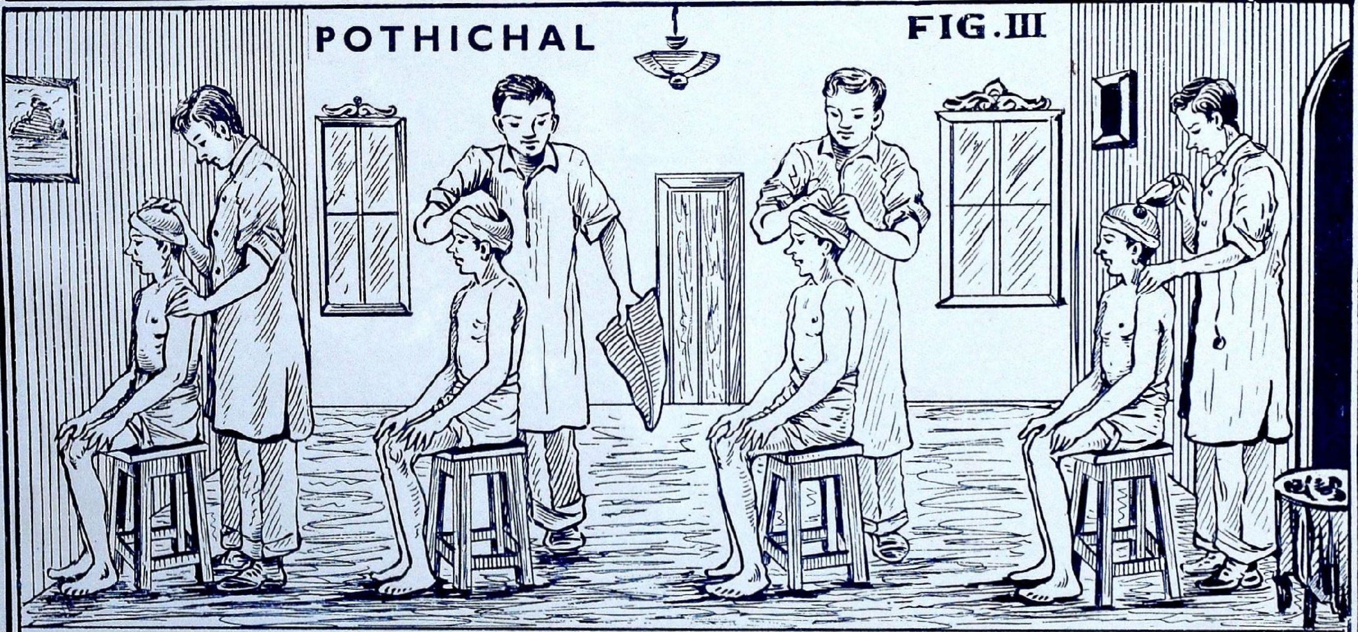
Theatre, showing the necessary equipment and attendants.

FIG. II SWEDANAM



POTHICHAL

FIG. III



Shave the Scalp and apply Oil

Smear the Kalkam over the Scalp and cover with leaf.

Make a pit in the Kalkam at the Vertex.

Pour the oil in the Pit and keep it so for some time.

Indications :—Various diseases of Eye, Ear, Nose, etc.

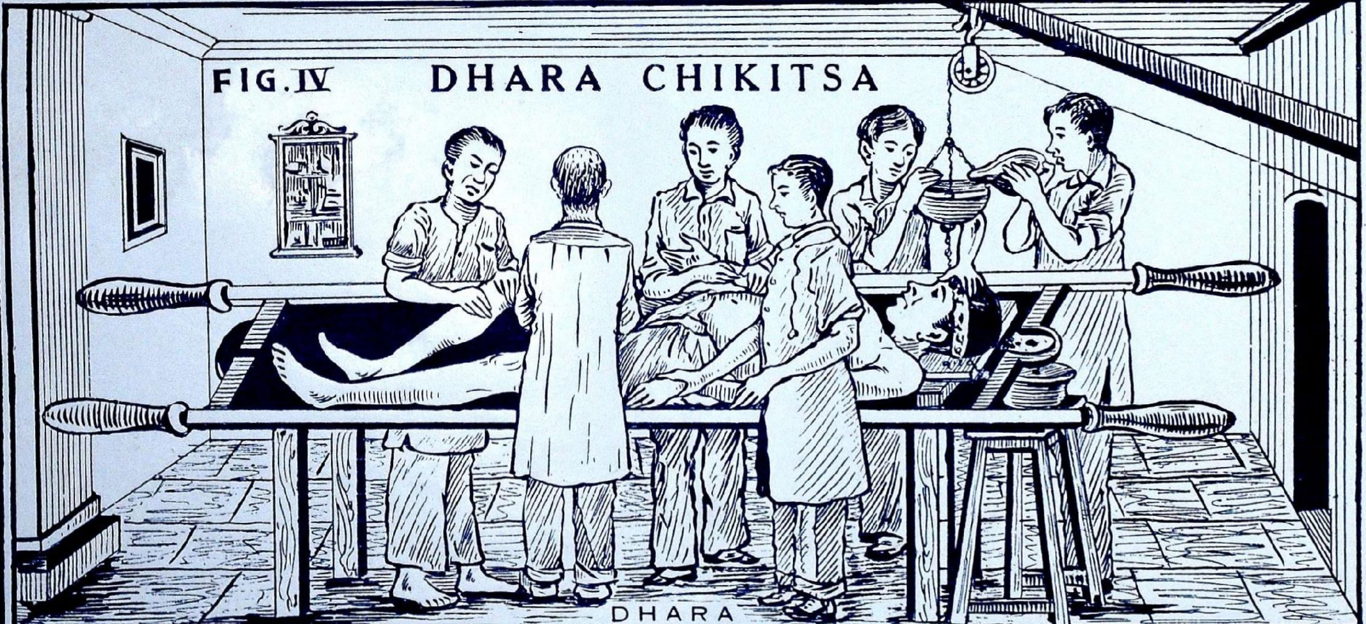


FIG. IV DHARA CHIKITSA

DHARA

(THAKRADHARA—THAILADHARA—KSHEERADHARA Etc.)

- SARVANGADHARA
  - SHIRODHARA
    - Indicated in
    - Madam Murcha Bhrama Apasmara Unmada Netraroga Karnaroga Pakshavadha Antharayama
  - KAYADHARA
    - Indicated in
    - Sarvanga Vatham Sarvanga Shopham Daham Sosham
- EKANGADHARA
  - Indicated in
  - Vataraktha Ekanga Shopam Vranashopam Vidradhi Kroshtuka Sirsha

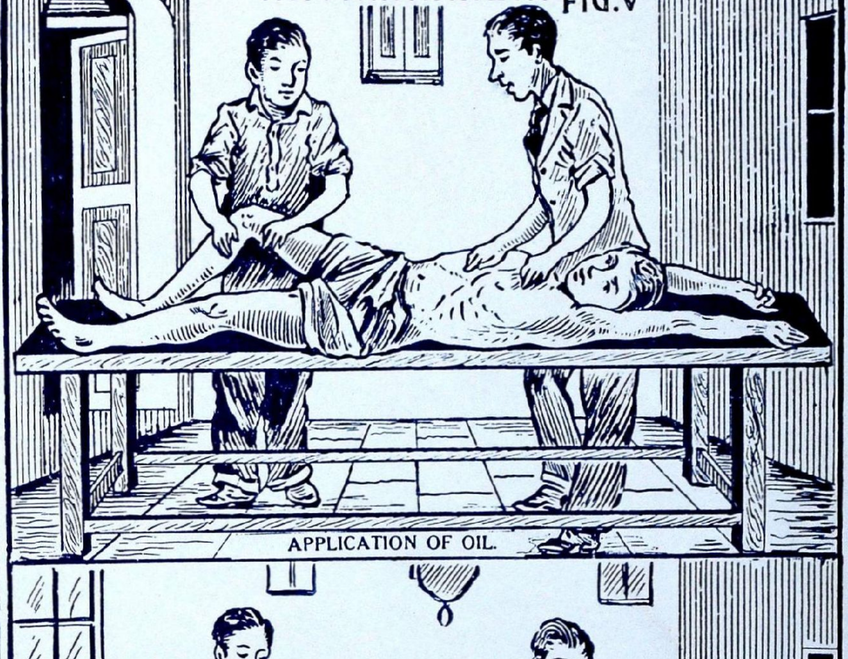
Material used for the Dhara Patra :—Gold, Silver Clay Etc.

Wood used for Droni :—Karaskara Amalaki Amra Ashwatha Ashoka Asana Devadaru Udumbara

Size of the Dhara Patra :—2 Prasthams

Size for the Droni :—Length—8 to 10 ft. Breadth 22 to 32 inches.

NAVARAKKIZHI FIG.V



Indications :—Pakshavadha Sosha Amavata Vatarakta (chronic) Swasam Kasam Yakshma Twak-rogam Various Vata diseasest with pain Cramps Rigidity Stiffness Etc.

Dravyams Used :—Navara Godhooma Masha Kulatha Sathapushpa Etc.

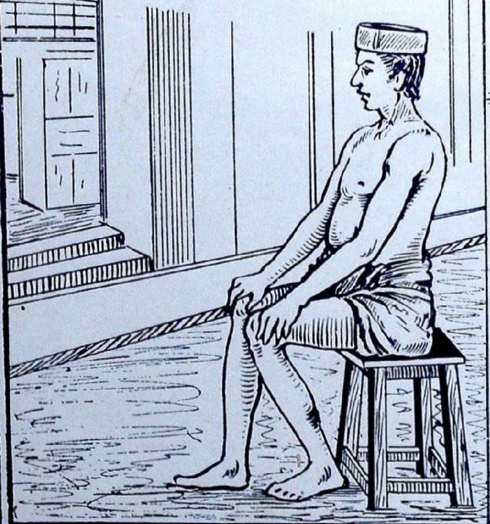
Directions :—Kalkam of the Dravyam is bundled in a piece of cloth—put in the boiling milk when sufficiently warm the bundle is applied to the body.

FIG. VI

SHIROVASTHI

Indications :—Shirorogas Prasupthi Arditha Nidranasa Sosha Thimira Etc.

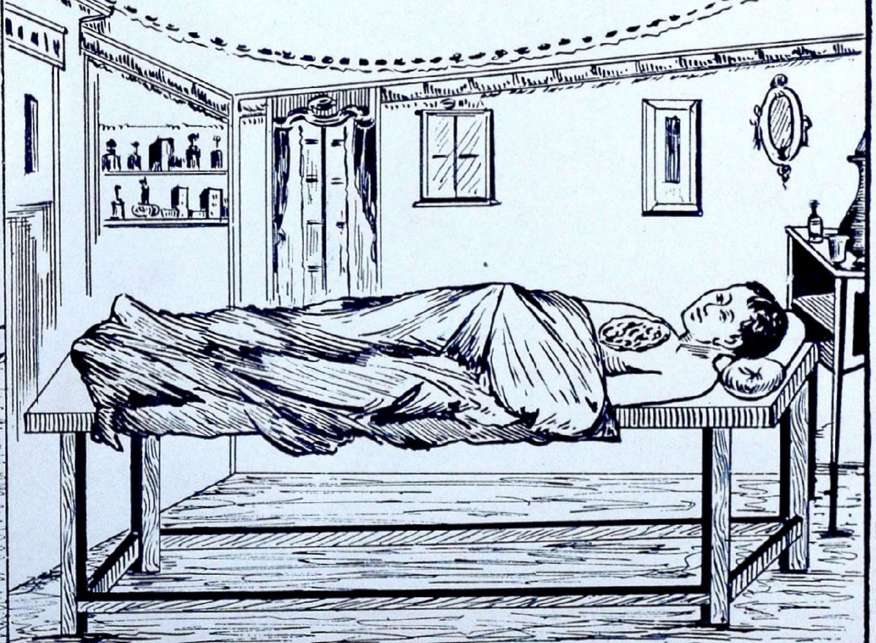
Directions :—Patient Seated on a Bench a leather-piece 12″ x (4 to 6″) is put round the Scalp after a clean shave of the part as shown here. The leather should be tightly fitted as a cap and the crypts between the Cap and Scalp are pasted with—on the inner aspect—the Masha-kalkam to prevent the oozing out of oil. Then pour Medicated Oil.



UROVASTHI

Indications :—Hridrogam Bhaktarodha.

Directions :—Masha Mudgakalkam is put over Uras, Central Pit is made and oil is poured. in it



MARMAS IN THE UPPER EXTREMITY.

KSHIPRAMARMAM.

This is a Snayu Marmam.
Kalanthara Pranaharam ($\frac{1}{2}$" in extent).

Description of the Marmam:—

Thathra hasthangushtangulyormadhye, Kshipramnama marma Thathra viddhasyakshepakena maranam.

The situation of this marma is in between the thumb and the index finger. Injury to this leads to clonic spasms of the hand and occasionally ends in death.

Anatomical structures corresponding to the Marma:—

1. Tendon of adductor pollicis.
2. Tendon of deep portion of flexor pollicis brevis.
3. (a) Arteria princeps pollicis (Branch of the radial artery). (b) Branches from the deep Volar arch.
4. Arteria Volaris Radialis indicis.
5. Digital Branches of the median nerve.
6. First Dorsal interosseous muscle.

Treatment.

For Bleeding:—

Do Jala-dhara. (Dhara means Sekam).

For Pain & Swelling:—

Take Gudoochi-dwayam, Gojihwa, Doorva, Lakshmana and Bala. Pound them well and put in tender cocoanut water. Then extracting the juice add milk and do Dhara for 12 hours. The swelling, pain and paravasyam will be relieved.

Or

Do Dhara to relieve pain with two parts of oil and one part of ghee.

For Pain & Paravasyam:—

Prepare Ksheera-kashayam with Bhunimbam, Chandanam, Vari, and Baladwayam and do dhara.

For Daham (Burning Sensation):—

Misreya Choornam with ghee may be given internally.

Or

Kanyasaram with ghee may be given internally.

For Head-ache and Mandam:—

Rub Balamoolam with Stanyam, mix with butter and Kumariswarasam and apply over the bregma.

For Mandam and Weakness:—

Rub Chandanam and Mallikapatram with milk, mix it with Stanyam and butter and apply externally over the bregma.

Lepam for Fainting:—

Take equal quantities of ghee, oil, milk and cocoanut water and apply over the whole body except the head.

Lepam for Pain and Swelling:—

Rub Thilam, Amritha and Thriphala with milk, mix with butter apply externally.

Lepam for Pain:—

Rub Balamoolam mixing with butter and egg and apply externally over the whole body.

To Heal the Ulcer:—

Rub the bark of Kadambam with Gojihwa swarasam, mix with Stanyam and butter and apply over the ulcer.

Ghritam for internal administration to a Marmapeeditha:-

The juices of Vasa, Sakralatha, Thumbichada, Sthalakamalam, Amra, and Sigru leaves and Thintrinipatra-Sira

	each Measures	...	4
Ghee	do	...	1
Jeeraka Kashayam	do	...	1
Milk	do	...	1

Kalka-dravyams:—Chandanam, Useeram, Kanyasaram, Kalanusari, Parangi (Benzoin), Poothigandham, Jalam. Bhunimbam, Jeerakam, Ajaji and Ela. Prepare ghritam with the above.

TALA-HRUDAYAM.

This is a Mamsa Marmam.

Kalanthara Pranaharam. (½" extent).

Description of the Marmam:—

Madhyamanguleemanupoorvena madhye hasthathalasya Thalahridayam nama thathrapi rujabhirmaranam.

The situation of this marma is in the middle of the palm of the hand in a line along with the middle finger. Injury to this marma causes much pain and endangers life in course of time by complications.

Anatomical structures corresponding to the Marma:—

1. Intermediate part of the palmar aponeurosis.
2. (a) Superficial volar arch.
   (b) Deep volar arch.
3. (a) Adductor pollicis.
   (b) Flexor pollicis Brevis.
   (c) Interossei.
   (d) Lumbricals.

Here haemorrhage results and consequently complications such as sepsis and cellulitis will be the causes of danger to life.

Treatment.

For Haemorrhage:—

Do jaladhara for 4 yamams. If the pain increases, mix the kalkam of black gingely in cold water and do dhara.

For Head-ache:—

Rub chandanam with breast milk, mix with butter and apply externally over the bregma.

Paravasyam (Semi-Unconsciousness):—

Mix equal quantities of ghee, oil and milk in tender cocoanut water and apply externally over the bregma.

Kashayam for Pain:—

Prepare ksheera-kashayam with useeram, chandanam, bala and ghanam and give internally.

Dhara for Pain:—

Mix the kalkam of Plaksham, Arimeda, Doorva, Gojihwa, Thilam with milk and do dhara.

Dhara for Pain and Swelling:—

Take Kapeethanam, Plaksham, Doorva, Gojihwa, each two palams, prepare kashayam in eight measures of water, reduce it to two measures and filter. To this add equal quantities of tender cocoanut water, oil and eight palams of black gingely.

Or

Do dhara with ghee mixed with Chathuksheeri kashayam.

Or

Apply sathadhautha ghritham externally for pain.

Lepam for the whole Body in Paravasyam:—

Make Bhunimbam, Jeerakam and Himam a paste in cocoanut water, mix it with ghee and apply externally. Then Paravasyam and pain will be relieved.

Internal Medicine for the Ulcer, Pain, and Swelling :—

Thikthaka Kashayam	1	Measure
Tender cocoanut Water	1	„
Sathavari Rasam	1	„
Ghee	½	„
Milk	½	„

Kalka-Dravyams:—Take useeram, jalam, chandanam, devimoolam, bhunimbam, paranthi and thanduleeyam, all equal quantities. Mix sugar-candy with it. Prepare the ghritam with the above.

Dhara for Varna-Soola:—

Take Ksheeridrumam, Doorva, Gojihwa and Lakshmana and extract juice out of the above drugs.

each	¼	Measure.
Ghee	½	„
Milk	2	„

Kalka-Dravyams:—Take chandanam and yashti Prepare ghritham with the above and do dhara. The pain in the ulcer will subside.

Dhara for the Ulcer:—

Doorva-Rasam	measures	2
Milk	„	2
Ghee	„	1

Kalkam:—Yashti and chandanam, equal parts. Prepare ghritham with the above and do dhara.

Dhara for Painful Ulcer:—

Take Amritha, Sathavari, the leaves of Velloorpatty, Bala, Erandam and Bhootala and extract their swarasams each one measure.

Ghee	½	Measure.
Oil	½	„
Milk	1	„

Kalka-Dravyams:—Bala, Jalam, Chandanam and Useeram. Prepare Ghritam and do dhara.

Lepam to Heal the Wound:—

Mix ghee with Dasapushpa-rasam and do dhara.

Lepam for Pain and Swelling:—

Take the barks of Udumbaram and Arimeda, Gojihwa, Lakshmana, Thilam, Doorva-pallavam, and rub the above drugs with milk, mix butter to it and apply externally.

Another Paste:—

Take the following in equal quantities:-Thandulams of Kangu, Kuhaliyugalam, Erandam and Sali, Thilam, Ambujam, Jalam, Useeram, Chandanam, Amrithavalli, Plaksham, Lakshmana, Abheeru, Gojihwa, and boil the above drugs in milk and make a paste. To it add butter and apply externally.

The potency of the above paste will be increased if fruits of Rambha and eggs are added to it.

KOORCHAMARMAM.

This is a Snayu Marmam.
Vykalyakaram, (4" in extent).

Description:—

Kshiprasyoparishtadubhayathah kurchonama
Thathrahasthasya bhramana vepane bhavathah.

The situation of this marma is on both the sides of a line directly drawn up from Kshipra-marma on to the metacarpal bones. Vaghbata says that the situation of the Marma is two inches above the position of Kshipra Marma. Injury to this marma leads to deviation and shivering of the hand.

Anatomical structures corresponding to the Marma:—

1. (a) Tendon of extensor pollicis longus.
   (b) Tendon of extensor digitorum communis.
   (c) Tendon of extensor indicis proprius.
   (d) Tendon of extensor carpiradialis longus.
   (e) Tendon of extensor carpiradialis brevis.
2. (a) The dorsal ligaments.
   (b) Interosseous ligaments over the bases of all the metacarpal bones.
   (c) The articular capsule between the greater multangular and the first phalanx of the thumb.
3. (a) Radial artery.
   (b) Radial artery with its dorsal carpal branches.
   (c) Radial artery with its dorsal metacarpal arteries.
4. Interosseus muscles.
5. (a) The carpo-metacarpal articulations.
   (b) Inter-metacarpal articulations.

Treatment.

If injured, the pain will be greater. The Panchendriyas will lose their proper functions and the limbs will be weakened.

First do Jala-dhara.

Lepam for Pain:—

Mix equal quantities of oil and ghee and apply externally.

Kashayam for Respiratory Trouble:—

Prepare Ksheera-kashayam with Baladwayam, Himam Sathavari and Bhunimbam. Swasakasa will be relieved by taking this internally.

The treatment of Kshipram may be done for Koorcham also.

Lepam for Ulcer:—

Boil well, Gudoochi, Kuhalidwayam, Balamoolam and Thilam in milk and make a paste. To it add butter and apply externally. This will relieve the pain and heal the ulcer.

Use Bala-thailam for oil bath. It is good for the complications resulting from injury to this marma.

KOORCHASIRA MARMAM.

This is a Snayu Marmam.
Rujakaram, ($\frac{1}{2}''$ in extent).

Description of the Marma:—

Manibandhasya sandheh ubhayathah
Koorchasironama thathra ruja sophau.

The situation of the marma is below the wrist on both the sides. Injury to this marma results in pain, swelling and other complications.

Anatomical structures corresponding to the Marma:—

1. (a) Inter-carpal ligaments.
   (b) Transverse carpal ligament.
2. Ulnar artery.
3. Median nerve and superficial branches of the ulnar nerve.
4. Inter-carpal articulations.

Treatment.

If injured, the pain will be severe and the part may get swollen and the patient becomes restless.

Dhara for Pain:—

Pound Gojihwa, Lakshmana, Doorva and Gudoochi and put in milk. Do dhara with this milk.

Fig. VII.– The Marmas in the Superior Extremity.

The Marmas of the Superior Extremity are similar to those of the Inferior Extremity, (vide Sanskrit relating to Fig. VIII opposite to page 24) except with the special differences given below:—

विशेषतस्तु यानि सक्थ्नि गुल्फजानुविटपानि तानि बाहौ मणिबन्धकूर्परकक्षधराणि; यथा वङ्क्षणवृषणयोरन्तरे विटपमेवं वक्षःकक्षयोर्मध्ये कक्षधरं, तस्मिन् विद्धे त एवोपद्रवाः; विशेषतस्तु मणिबन्धे कुण्ठता, कूर्पराख्ये कुणिः, कक्षधरे पक्षाघातः ।

Fig VII.- The Marmas in the Superior Extremity.

Kshipram.

1. Tendon of adductor pollicis.
2. Arteria princeps pollicis.
3. Digital branch of median nerve.
4. Tendon of deep portion of flexor pollicis brevis.
5. First dorsal interosseous muscle.

Talahrudayam.

1. Adductor pollicis muscle.
2. Superficial volar arch.
3. Interossei muscles.
4. Lumbricals.

Kurcha.

1. Tendon of extensor digitorum communis.
2. Radial artery.
3. Tendon of extensor pollicis longus.
4. Tendon of extensor indicis proprius,
5. Dorsal metacarpal branches of radial artery.

Kurchasiram.

1, Ulnar artery.
2. Median nerve.
3. Transverse carpal ligament.

Manibandham.

1. Radio-ulnar ligament.
2. Ulnar collateral ligament.
3. Radio carpal ligament.
4. Radial collateral ligament.

Indravasthi.

1, Median nerve.
2. Flexor digitorum sublimis muscle
3. Radial artery.
4. Pronator teres muscle.
5. Flexor carpi radialis muscle.

Kurparam.

1. Radial collateral ligament.

2 & 3. Ulnar collateral ligament.

4. Annular ligament.

Ani.

1. Median nerve.
2. Ulnar nerve.
3. Arteria profunda brachii.
4. Biceps brachii muscle.

Bahvi.

1. Brachial artery with its venae comites.
2. Median nerve.
3. Radial nerve.
4. Ulnar nerve.
5. Biceps brachii mucsle.

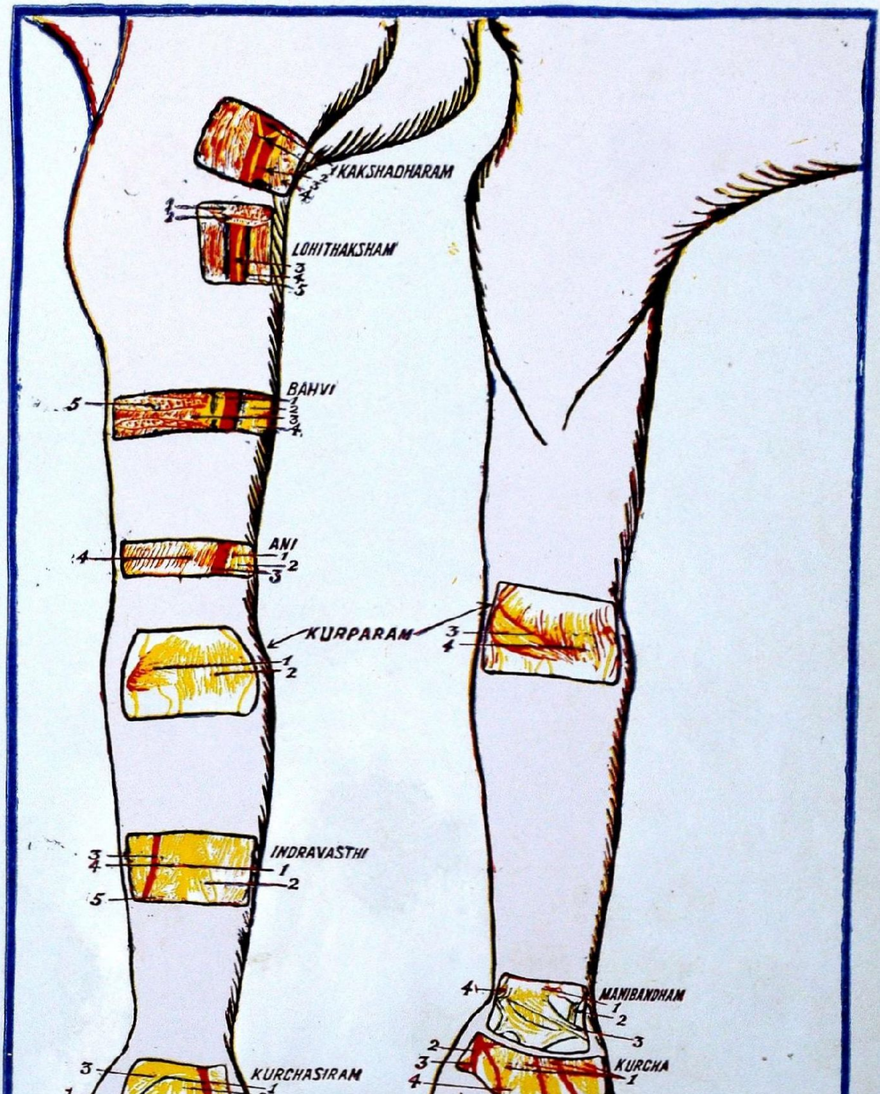
N.B.-Bahvi corresponds to Urvi in the inferior extremity.

Lohithaksham.

1. Pectoralis major muscle.
2. Pectoralis minor muscle.
3. Brachial artery with its venae comites.
4. Median nerve.
5, Ulnar nerve.

Kakshadharam.

1. Axillary artery and vein.
2. Medial head of the median nerve
3. Ulnar nerve.
4. Tendon of pectoralis minor.



KAKSHADHARAM
LOHITHAKSHAM
BAHVI
ANI
KURPARAM
INDRAVASTHI
KURCHASIRAM
KSHIPRAM
TALAHURUDAYAM
MANIBANDHAM
KURCHA

Kashayam for Paravasyam:—

Prepare Ksheera-kashayam with masham. **Mix sugar** with it and give internally.

Lepam for Ulcer, Swelling and Pain:—

Prepare a paste of Thriphala, Poogapushpam, Gudoochi and Thilam after boiling them in milk. Then mix it with butter and apply externally.

For Weakness:—

Mix butter with the juices of Gudoochi, Lakshmana, Doorva and Gojihwa and apply all over the body.

Ksheerabala-thailam is good for oil-bath.

MANIBANDHAM.

This is a Sandhi marmam.
Vykalyakaram, (2″ in extent).

Description of the Marma:—

Hasthakoorparayossandhane manibandhamnama
Thathra manibandhekunthatha.

The situation of the marma is at the junction of the hand with the fore-arm (wrist joint) Injury causes pain and paralysis.

Anatomical structures corresponding to the Marma:—

1. Articular Capsule.
2. Ulnar-collateral ligament.
3. Radio-ulnar ligament.
4. Radio-carpal ligament.
5. Anterior and posterior ligaments.
6. Radial-collateral ligament.
7. Inter-carpal ligaments.

TREATMENT.

For Pain:—Dhara

Do dhara with equal quantities of oil, ghee and milk.

For Pain:—

Prepare kashayam of Musta, Chandanam, Jalam, Parpatakam and Useeram and give it in the evening and the kashayam of Balamoolam with Jeeraka-choornam in the morning.

For Pain (Thodam):—

Rub Balamoolam with milk, mix it with ghee and apply externally.

For Unconsciousness:—Lepam

Mix stanyam and butter and apply over the bregma.

For Swasakasam:—(Internally)

Sathavari Rasam	Measure $\frac{1}{2}$
Milk	do $\frac{1}{2}$

Mix and boil the above to $\frac{1}{4}$ measure. To this add Milk, Sugar and Rambha fruits and stir well. Take this with Jeeraka-choornam in the noon.

For Neuralgic Pain:—

Take Sanninayaka-choornam with butter. This will relieve the pain and swasakasam.

For Vranasoola and Vranasopha:—

Prepare kashayam of the four varieties of bala. To this add ghee and pig's fat and stir well. Repeat this process twenty-one times and apply externally.

If rambha fruit and egg are added to the above, it will give relief to pain and heals the wound.

INDRAVASTHI.

This is a Mamsa Marmam.

Kalanthara Pranaharam, (2″ in extent according to Bhoja and Gayadas and ½″ according to others).

Description:—

Koorparamadhyepurathah indravasthirnama
Thathrasonithakshaye maranam.

The situation of the marma is above the wrist and in the middle of the fore-arm. Injury to this marma endangers life by diminished blood supply and its sequelae.

Anatomical structures corresponding to the Marma:—

1. (a) Radial artery (with its volar branches).
   (b) Volar interosseous branch of the ulnar artery (common interosseous, muscular and median artery).
2. Median nerve and its branches.
3. (a) Pronator teres muscle.
   (b) Flexor digitorum sublimus.
   (c) Flexor carpi-radialis.

Treatment

Dhara for Pain:—

Do dhara for two yamams with Thila-jalam (pound thilam and put it in water).

Another Dhara for Pain:—

Pound Rambha-kandam, Doorva, Gudoochi, Lakshmana, Priyabhuruhaka, Plaksha, Gojihwa, Sathavari and Soorpapatram and put them in milk. Do dhara with this milk.

Dhara with ghee will also give relief to pain.

Pain and Swelling in the wound:—

Make a paste of Thoyam, Chandanam and Useeram and mix with oil, ghee, milk, tender cocoanut water and arrowroot and apply externally.

Kashayam for Pain:—

Ksheera-kashayam with Devimoolam, Himam, Bhadra, Bala, Hreeberam, Thikthakam, Useeram and Sathavari.

For Paravasyam:—(Internally)

Ikshu and dhatri swarasams, milk, ghee and sugar are to be mixed and given.

Kashayam:—(Internally)

Take quathams of Thikta and Himam; boil with tender cocoanut water, add ghee and give.

For Swasakasam:—

Misreya choornam with ghee may be given internally.

Lepam for Unconsciousness:—

Mix chandanam, stanyam and butter and apply externally over the bregma.

Lepam to Heal the Wound:—

Rub in milk Kuhalidwayam, Gojihwa, Lakshmana, Amritha, and the bark of Plaksha and squeeze out their juices, mix with butter and apply externally.

Santarpana Lepam to Heal the Wound:—

After boiling Sali, Priyangu, Thandulams of Kuhaliyugam and Chitra (Erandam), Sathavaripatram, Thilam, Jalam, Chandanam, Thoyadam and Amritha in Dasapushparasam and milk, make a paste. To it add butter and apply externally as a paste. When the above drugs are boiled in milk and mixed with butter, the preparation is known as Santharpana lepam.

Another Lepam to Heal the Wound:—

Boil in milk Mallikapatram, Veerapatram, Gojihwa, Kuhalidwayam and Kathakam and apply externally. Then the wound will first be slightly injected and gets healed quicker by subsequent application of butter and sthanyam over the wound.

For Dhara:—Lepam and Abhyangam.

The Kalkam of Mudgam, Chandanam, Mamsi, Rambha-phalam, Kushtam, Ambu and Useeram is mixed with equal quantities of oil, ghee, milk and the swarasams of Dasapushpam, Balamoolam, Beerveli-kandam, Kundali (Amritha), Sathavari. Prepare a paste. This liquid paste is used for dhara and also for abhyanga (oil-bath). It is one of the best remedies for a marma-peeditha.

KOORPARAM.

This is a Sandhi marmam.

Vykalyakaram, (3″ in extent but only 2″ according to others).

Description:—

Koorparakhye kunih.

The situation of the marma is at the junction of the forearm and the arm. Injury to this results in permanent disability of the limb.

Anatomical Structures Corresponding to the Marma:—

Elbow joint and all the structures connected with it viz :—

1. Articular capsule.
2. Radial-collateral ligament.
3. Ulnar-collateral ligament.
4. Annular ligament.

Treatment.

Dharas for Pain:—

(a) Heat gudoochi swarasam and do dhara.

(b) Add milk to the swarasams of dasapushpa and tender gudoochi and do dhara.

(c) Rub lajam, thilam and ajaji after boiling them in milk and do dhara.

For Pain:—(Kashayam Internally)

Prepare balamoola-kashayam by adding milk to it and give internally with ghee and jeeraka choornam.

For Swelling and Pain:—Lepam.

(a) Apply externally santharpana lepam which was given in the treatment of Indravasti marma.

(b) Apply externally mrinaladi lepam which is prepared as follows:—Pound mrinalam, mridukunjika, kutajamoolavalkam, nimbavalkam, amritha, thriphala, rajani, sarshapam, jaladam, seevyam, poothi, thilam chathuksheeri, jalam, chandanam, bhramarageham, doorva, ikshu, bhirvatam, kurakam, sariba, lavanam, lakshmana, parpatam, erandabeejam and kuhali and boil in milk. To it add oil, ghee and honey and apply externally. This will heal the wound.

For Sosham:—Oil bath.

Balagudoochyadi thailam is recommended.

Lepam for Swelling:—

Boil well in cocoanut milk, durdoorasyaphalam (kanakasya phalam) by replacing its beejams with pakwanarikelamajja and rub well. Apply this lepam externally after mixing it well with butter.

Another Lepam for Pain and Swelling:—

Boil udumbara-thwak in kanjikam and rub well. Mix this with butter and apply externally.

For Swelling and Healing the Wound:—Lepam

Rub the pallavams of uttareni, paranthi, doorva, karthotti, nisha and soorpapatram and prepare a paste mixing it with butter, castor-oil. gingely-oil and pig's fat (vasa). This will give relief to pain and swelling and heal the wound. This acts as a specific.

To increase weight and strength (Brumhanam):—Give internally the mamsams of kiti (pig) and kukkutam (fowl). Vidaryadi ghritham is also given.

ANI-MARMAM.

This is a Snayu marmam.

Vykalyakaram. (3″ in extent according to Gaydas)

Description:—

Koorparadoordhavamubhayathasthryangulamanirnama

Thathra sophabhivridhisthabdhabahuthacha

The situation of the marma is three inches above the elbow joint on both the sides. Injury to this causes swelling and paralysis of the arm.

Anatomical structures corresponding to the Marma:—

1. Arteria profunda brachii.
2. (*a*) Median nerve on the medial side.
   (*b*) Ulnar nerve.
   (*c*) Radial nerve on thel ateral side of the Posterior aspect of the arm.
   (*d*) Musculo-cutaneous nerve.
3. (*a*) Biceps Brachii muscle.
   (*b*) Coraco-Brachialis muscle.
   (*c*) Triceps Brachii muscle.

Treatment.

For Pain:—

Pound dasapushpam and balamoolam and put in milk and do dhara with this milk.

For Sarvanga-ruk (pain all over the body):—

(*a*) Do dhara for three days with pure ghee.

(*b*) Lepam:—Stir ghee well in the swarasams of dasapushpa and balamoolam and apply all over the body. This besides relieving the pain all over the body, removes the pain of the wound.

For Unconsciousness:— Lepam

Rub balamoolam in milk, mix it with butter and apply externally over the bregma.

For Paravasyam and Weakness:—(Kashayam)

Take balatraya kashayam.

For Fever:—(Kashayam)

Shadanga kashayam internally.

For Swelling:—(Lepam.)

Rub kangubeejam and mudgam, mix with butter and apply externally. Pain and swelling will be relieved

Lepam for Inducing Irritation or Injection in the Wound:—

Rub equal quantities of erandapallavam and thilam in cold water and apply externally. The wound will be slightly injected and the pain will be decreased. This is based on counter-irritation principle of treatment.

For Swelling:—Lepam.

Boil in milk and rub keeripushpam, gudoochi and thriphala and mixing it with butter, apply externally.

Santharpana-ghritam also is good to decrease the pain and swelling and to heal the wound.

For Oil Bath.—Thailam.

The swarasams of dasapushpam, moolams of baladwayam, gudoochi, erandamoolam and chatuksheerithwak with pancha-thailams (eranda, narikela, thila karanja and nimba).

For kalkam:— Mamsi, manjishta, misreyam, kanyasaram, sarjarasam, aswagandha, sathahwa and kundurushkam.

Ghritam to be given Internally:—

Prepare ghritam with kashayam and kalkam of dasamoolams.

BAHVEE.

This is a Sira marmam.
Vyakalyakaram. (½″ in extent).

Description:—

Bahumadhye bahveenama
Thathra sonithakshayath bahushoshah

The situation of the marma is in the middle of the arm. Injury brings on atrophy due to diminished blood supply.

Anatomical structures corresponding to the Marma:—

1. (*a*) Brachial artery.
   (*b*) Brachial Vein.
2. (*a*) Median nerve.
   (*b*) Ulnar nerve.
   (*c*) Radial nerve.
3. Biceps Brachii muscle.

Treatment.

For Pain:—

Do dhara with equal quantities of oil and ghee.

For Sambhramam:—(Vertigo)

Rub chandanam with stanyam, mix with butter and apply over the bregma.

For Vayu-kshobham and Jwaram (respiratory trouble and fever):—

Shadanga kashayam internally.

For relieving pain and healing the wound:—Lepam.

Rub the tender leaves of lavale, markatee, veera, mallika and lakshmana, panchangulam and gudoochi in milk, mix it with butter and apply externally.

The treatment given for Ani marma is also applicable for Bahvee marma.

LOHITHAKSHAM.

This is a Sira marmam.

Vykalyakaram ($\frac{1}{2}''$ in extent).

Description:—

Bahvyamoordhamadho kaksha sandheh bahumoole
lohithaksham nama
Thathra lohitakshayena pakshaghathah.

The situation of the marma is above the Bahvee marmam and below the axillary fold and at the root of the upper extremity (Brachium). Injury to this marma leads to paralysis of the whole superior extremity due to diminished blood supply.

Anatomical structures corresponding to the Marma:—

1. (*a*) Brachial artery.
   (*b*) The two Venae-comites accompanying the above.

2. (*a*) Median nerve.
   (*b*) Ulnar nerve.

3. (*a*) Pectoralis major muscle.
   (*b*) Pectoralis minor muscle.

Treatment.

For Pain, Swelling and to stop Bleeding:—Dhara.

Take the juices of thala, gudoochi, gojihwa, lakshmana and abheeru, mix with milk and do dhara.

For Pain:—Another dhara.

Do dhara with equal quantities of oil and ghee.

For Pain:—Lepam.

Apply to the whole body a mixture of tender cocoanut water, ghee and milk.

For Pain and Swelling:—Lepam.

Take the swarasams of balamoolam, sathavari and gudoochi, mix with ghee and apply externally.

For Pain and Fever:—Kashayam.

Shadanga kashayam to be give internally.

Paravasyam (Semi-unconsciousness):—

Mix rambhaphalam and sugar with milk and do dhara.

For Thirst:—

A piece of sugarcandy may be given for slowly swallowing its juice.

Or

Give equal quantities of sugar and bhasmam of peacock feathers internally.

Or

Perukinthwak choornam with honey may be given internally.

Or

Rub thikta, srikhandam (chandanam) and jeerakam in tender cocoanut water and give internally.

To Heal the Wound:—Dhara.

(*a*) Prapare ghee in dasapushparasam and do dhara.

(*b*) Mix the powders of santarpana (laja) and thriphala with ghee and apply externally.

For all Marma-prakopas:—

Administer vidaryadi ghritham internally.

KAKSHADHARAM.

This is a Snayu marmam, according to Susruta. Vaghbata describes this to be Siramarma.

Vykalyakaram, ($\frac{1}{2}''$ or $1''$ in extent).

Description:—

Vakshah kakshayormadhye kakshadharam
thasmin viddhe kakshadhare pakshaghathah.

The situation of this marma is between the chest and the arm pit. Injury to this leads to paralysis of the limb or kunitwam, according to Vaghbata.

Anatomical structeres corresponding to the Marma:—

1. (a) Axillary artery.
   (b) Axillary vein.
2. Tendon of pectoralis minor.
3. Medial head of the median nerve.
4. Ulnar nerve.

Treatment.

For Pain:—

Do dhara with equal quantities of oil and ghee.

For Pain and Swelling:—Lepam.

Boil gudoochi, erandabeejam and thilam in milk, make a fine paste, mix it with butter and apply.

For Thirst:—

Make a hole in oorvarupalam and pack it with sugar. The water oozing from this, is good to allay thirst.

For Hiccough:—

Administer deviswarasam (sahadevi) with milk internally.

For Unconsciousness:—Lepam.

Rub lavale and balapatrams with milk, mix with butter and make a paste to be applied over the bregma and the wound.

Or

Mix butter with dasapusha swarasam and apply all over the body.

For Paravasyam:—Lepam.

Mix butter with the juices of bala and chincha-patrams and apply externally.

For internal use:—Ghritam.

Prepare kashayam of trivruth, dhatri and gudoochi and filter the kashayam. To this add one measure of ghee, one measure of kooshmanda swarasam, one measure of visala swarasam and kalkam of yashti, thriphala and nisha in equal quantities and prepare the ghritam; add sugar to this (ghritam), stir well and use it internally in Kakshadhara and Vitapa marma doshas.

Another Ghritam:—Internally.

Milk	measures	4
Ghee	do	½
Balamoola-kalkam	palams	3

Prepare ghritam. This can be used externally also.

For Bath:—Thailam.

(*a*) Prepare kashayam of thintrini-valkam, useeram and erandamoolam, add oil and milk (double the quantity of oil). Add the kalkams of sarjarasam, karpasa-beejam, devadaru, jeerakam, chandana-dwayam and lohakam and prepare thailam.

Or

(*b*) Prepare thailam, with equal quantities of gingely oil, milk and the swarasams of gudoochi, gojihwa and thali, adding the kalkam of chandanam, sunthee, and amalakee.

The treatment of Lohithaksha marma is also applicable to this marma.

MARMAS IN THE LOWER EXTREMITY.

KSHIPRAMARMAM.

This is a Snayu Marmam.
Kalanthara Pranaharam ($\frac{1}{2}''$ in extent).

Description of the Marma:—

Thathra padasyangushtangulyormadhye kshipram Namamarma, thathra viddhasya akshepakena maranam.

The situation of the marma is in between the great toe and the second toe. This corresponds to the web between the above two. Injury to this marma leads to clonic spasms of the foot and occasionlly results in death.

Anatomical structures corresponding to the Marma:—

1. Combined tendon of adductor hallucis and flexor hallucis brevis (lateral portion). This tendon is inserted into the lateral side of the great toe.

2. Transverse metatarsal ligament.

3. (*a*) Bifurcation of the first dorsal metatarsal artery.
   (*b*) Lateral dorsal artery (branch of the dorsalis pedis) anastomosing with the lateral plantar artery laterally, with the arcuate artery in front, with the anterior lateral malleolar artery and the terminal part of the peroneal artery above.

4. (*a*) Bifurcation of the first common digital nerve (branch of the medial plantar nerve) which supplies a twig to the first Lumbrical muscle.
   (*b*) Bifurcation of the medial terminal branch of the deep peroneal nerve which supplies a twig to the first dorsal interrosseous muscle.

Treatment.

It is same as that of Kshipramarma in the upper extremity.

TALAHRUDAYAM.

This is a Mamsa marma.
Kalanthara Pranaharam, (½" in extent.)

Description of the Marma:—

Madhyamanguleemanupoorvena madhye padathalasya

Thalahrudayam nama thathrapi rujabhirmaranam.

The situation of this marma is in the middle of the sole of the foot in a line along with the middle toe of the foot. Injury to this marma causes much pain and endangers life in course of time.

Anatomical structures corresponding to the Marma:—

1. Muscles in the sole of the foot (from below upwards).
   - (*a*) Flexor digitorum brevis.
   - (*b*) Quadratus plantae.
   - (*c*) Oblique head of the adductor hallucis with the plantar aponeurosis.
2. Plantar arch of arteries.
3. Long plantar ligamant.
4. Deep branch of the lateral plantar nerve (accompanies the plantar arch).

Treatment.

It is same as that of Talahrudayam in the upper extremity.

Fig. VIII.– The Marmas in the Inferior Extremity.

अत ऊर्ध्वं प्रत्येकशो मर्मस्थानानि व्याख्यास्यामः—तत्र पादस्याङ्गुष्ठाङ्गुल्योर्मध्ये क्षिप्रं नाम मर्म, तत्र विद्धस्याक्षेपकेण मरणं; मध्यमाङ्गुलीमनुपूर्वेण मध्ये पादतलस्य तलहृदयं नाम, तत्रापि रुजाभिर्मरणं; क्षिप्रस्योपरिष्टादुभयतः कूर्चो नाम, तत्र पादस्य भ्रमणवेपने भवतः; गुल्फसन्धेरध उभयतः कूर्चशिरो नाम, तत्र रुजाशोफौ; पादजङ्घयोः सन्धाने गुल्फो नाम, तत्र रुजः स्तब्धपादता खञ्जता वा; पार्ष्णिं प्रति जङ्घामध्ये इन्द्रबस्तिर्नाम, तत्र शोणितक्षयेण मरणं; जङ्घोर्वोः सन्धाने जानु नाम, तत्र खञ्जता; जानुन ऊर्ध्वमुभयतस्त्र्यङ्गुलमाणी नाम, तत्र शोफाभिवृद्धिः स्तब्धसक्थिता च; ऊरुमध्ये ऊर्वी नाम, तत्र शोणितक्षयात् सक्थिशोषः; ऊर्व्या ऊर्ध्वमधो वङ्क्षणसंधेरूरुमूले लोहिताक्षं नाम, तत्र लोहितक्षयेण पक्षाघातः सक्थिशोषो वा; वङ्क्षणवृषणयोरन्तरे विटपं नाम, तत्र षाण्ढ्यमल्पशुक्रता वा भवति; एवमेतान्येकादश सक्थिमर्माणि व्याख्यातानि

Fig. VIII – The Marmas in the Inferior Extremity.

Kshipramarmam.

1. Combined tendon of adductor hallucis and flexor hallucis brevis (lateral portion).
2. Bifurcation of first common digital nerve.
3. Bifurcation of first dorsal metatarsal artery.

Talahrudayam.

1. Plantar arch of arteries.
2. Deep branches of the lateral Plantar nerve.
3 Oblique head of adductor hallucis musle (cut).
4. Quadratus plantae muscle (cut.)
5. Flexor digitorum brevis muscle (cut).

Kurcha.

1. Extensor digitorum brevis muscle.
2. Dorsalis pedis artery.
3. Tendons of extensor digitorum longus (lateral side).
4. Branch of deep peroneal nerve.
5. Tendon of extensor hallucis longus (on the medial side of (1).
6. Tendon of peroneus tertius.
7. Dorsal metatarsal arteries.
8. Tendons of extensor digitorum brevis.

Kurchasira.

1. Tendon of tibialis anterior.
2. Annular ligament (cruciate crural ligament).

Gulpham. (ankle joint.)

Medial aspect.

1. Medial malleolus.
2. Anterior ligament.
3. Deltoid ligament.
4. Posterior ligament.

Lateral aspect.

1. Anterior ligament.
2. Anterior talo-fibular ligament.
3. Fibula.
4. Posterior talo-calcaneal ligament.
5. Fibulo-calcaneal ligament.
6. Lateral talo-calcaneal ligament.

Indravastai.

1. Tendon of gastrocnemius (cut ends).
2. Posterior tibial artery.
3. Tendon of plantaris.
4. Tibial nerve.
5. Peroneal artery.
6. Soleus muscle.

Janu.

1. Patella.
2. Articular capsule.
3. Ligamentum patellae.
4. Tibial collateral ligament.

Ani.

1. Musculo articular branch of the highest genicular artery.
2. Nerve to vastus medialis (femoral nerve).
3. Quadriceps femoris muscle.

Urvi.

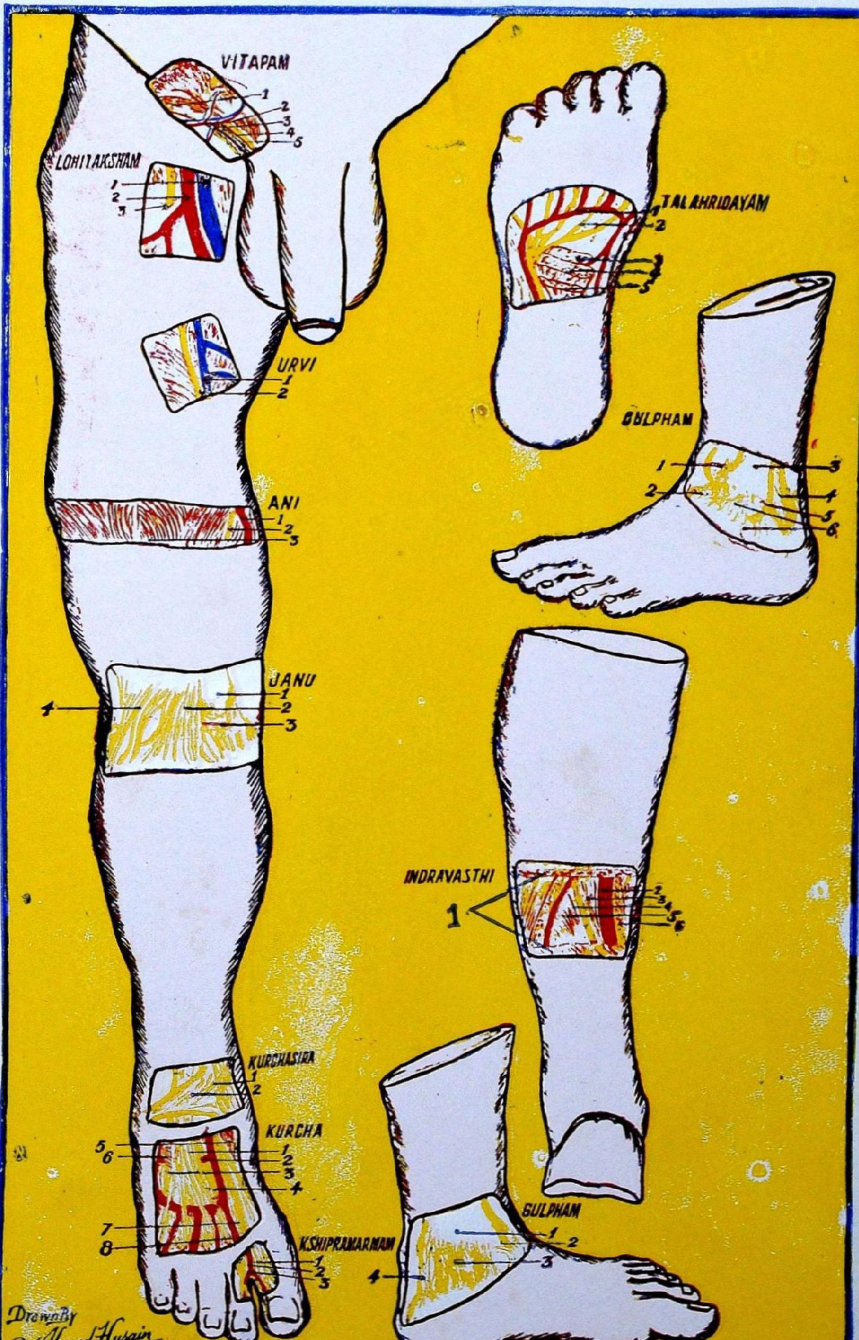
1. Saphenous vein.
2. Branch from femoral nerve.

Lohithaksham.

1. Femoral vein on the medial side of the femoral artery.
2. Femoral artery.
3. Femoral nerve on the lateral side of the artery.

Vitapam.

1. Spermatic cord and the fascia enclosing its nerves and vessels.
2. Ductus deferens with the artery supplying it.
3. Testicular artery.
4. Testicular vein.
5. Testicular nerve.



VITAPAM
1
2
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4
5
LOHITAKSHAM
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2
3
URVI
1
2
ANI
1
2
3
JANU
1
2
3
4
KURCHASIRA
1
2
KURCHA
1
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5
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7
8
KSHIPRAMARMAM
1
2
3
TALAHRIDAYAM
1
2
3
4
5
GULPHAM
1
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INDRAVASTHI
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GULPHAM
1
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Drawn By
Dr. Ahmed Husain

KOORCHAMARMAM.

This is a Snayu marmam.

Vykalyakaram. (4″ in extent).

Description of the Marma:—

Kshiprasyoparishtadubhayathah koorchonama
Thathra padasya bhramana vepane bhavathah.

The situation of this marma is on both the sides of a line directly drawn from Kshipra on to the metatarsal bones. Injury to this marma leads to deviation and shivering of the foot.

Anatomical structures corresponding to the marma:—

1. (*a*) All tendons of extensor digitorum brevis.
   (*b*) Tendons of extensor hallucis longus on the medial side of extensor digitorum brevis.
   (*c*) Tendons of extensor digitorum longus on the lateral side.
   (*d*) Tendons of peroneus tertius.
2. (*a*) Dorsal tarso-metatarsal ligament.
   (*b*) Dorsal inter-metatarsal ligaments.
3. (*a*) Dorsalis pedis artery.
   (*b*) Dorsal-metatarsal arteries.
4. Branch of the deep peroneal nerve.
5. Extensor digitorum brevis muscle.

Treatment.

It is same as that of Koorcha marma in the upper extremity.

KOORCHASIROMARMAM.

This is a Snayu marma.

Rujakaram (1" in extent).

Description of the marma:—

Gulphasandheradha ubhyathah koorchasironama thathra ruja sophau.

The situation of this marma is below the ankle joint on both the sides. Injury to this marma results in pain and swelling and other complications.

Anatomical structures corresponding to the marma:—

(1) Cruciate crural ligament.

(2) Tibialis anterior (tendon).

Here the pain is due to sepsis spreading along the tendon sheaths and cellulitis.

Treatment.

It is same as that of Koorchasiromarma in the upper extremity.

GULPHAM.

This is a Sandhi marma.

Vykalyakaram. (2" in extent).

Description of the marma:—

Padajanghayossandhane gulphonama thathra
Rujasthabdhapadathakhanjatha va.

The situation of this marma is at the junction of the foot and the leg (Ankle joint). Injury to this marma causes pain, paralysis and lameness.

Anatomical structures corresponding to this marma:—

Ankle joint with the several structures that go to form it.

Treatment.

It is same as that of Manibandham in the upper extremity.

INDRAVASTHI

This is a Mamsa marma.

Kalanthara Pranaharam (2″ in extent according to Bhoja and Gayadas and ½″ according to others).

Description of the marma:—

Parshnimprathi janghamadhye indravastirnama
Thathra sonithakshayena maranam.

The situation of the marma is in the line of the heel and in the middle of the leg. Injury to this marma endangers life by haemorrhage. Anatomical structures corresponding to the marma:—

1. Tendon of plantaris.
2. *(a)* Posterior tibial artery.
   (b) Peroneal artery (on the lateral side of the posterior tibial artery).
3. Tibial nerve (in between the above two arteries).
4. *(a)* Soleus muscle.
   (b) Gastrocnemeus muscle.

No. 2 and 3 lie on the tibialis posterior muscle.

Treatment.

It is same as that of Indravasthi in the upper extremity.

JANU MARMA.

This is a Sandhi marma.
Vykalyakaram. (3″ in extent).

Description of the marma:—

Janghorvossandhane janunama thathra khanjatha.

The situation of the marma is at the junction of the leg and the thigh. Injury to this causes lameness.

Anatomical structures corresponding to the marma:—

Knee joint with the several structures that go to form it, viz.

1. Articular capsule.
2. Ligamentum patellae.
3. Oblique popliteal ligament.
4. Tibial collateral ligament.
5. Fibular collateral ligament.
6. Anterior cruciate ligament.
7. Posterior cruciate ligament.
8. Medial meniscus.
9. Lateral meniscus.
10. Transverse ligament.
11. Coronary ligament.
12. Arcuate popliteal ligament.

Treatment.

It is same as that of Koorpa marmam in the upper extremity.

ANIMARMAM.

This is a Snayu marmam.

Vykalyakaram, (3″ in extent according to Gayadas and ½″ according to others).

Description of the marma:—

Januna oordhvamubhayathasthryangulamanirnama
Thathra sophabhivriddhi sthabdhasakthitha cha.

The situation of this marma is three inches above the knee joint on both the sides. Injury to this causes excessive swelling and paralysis of the thigh.

Anatomical structures corresponding to the marma:—

1. Quadriceps femoris.
   - (*a*) Rectus femoris.
   - (*b*) Vastus intermedius.
   - (*c*) Vastus lateralis.
   - (*d*) Vastus medialis.

2, Musculo-articular branch of the highest genicular artery running across from the medial to the lateral side.

3. Nerve to the vastus medialis (femoral nerve)

Treatment.

It is same as that of Ani marma in the upper extremity.

OORVI MARMAM.

This is a Sira marma.
Vykalyakaram (½″ in extent).

Description of the marma:—

Oorumadhye oorveenama
Thathra sonithakshayath sakthisoshah.

The situation of the marma is in the middle of the thigh. Injury brings on atrophy due to diminished blood supply.

The scar formed after the wound is healed, may interfere with the circulation of blood to the part and bring about atrophy.

Anatomical structures corresponding to the marma:—

1. Sephanous vein.
2. Branch of the femoral nerve.

Treatment

It is same as that of Bahvee in the upper extremity.

LOHITAKSHAM.

This is a Sira marma.
Vykalyakaram (½″ in extent).

Description of the Marma:—

Oorvya oordhvamadho vankshanasandheroorumoole
Lohithaksham nama, thathra lohithakshayena pakshaghathah sakthisosho va.

The situation of the marma is above the Oorvi marma and below the groin at the root of the thigh (in the ooru-moolasthanam). Injury to this marma leads to paralysis and atrophy of the whole inferior extremity due to diminished blood supply.

Anatomical structures corresponding to the marma:—

1. Femoral artery.
2. Femoral vein (on the medial side of the artery).
3. Femoral nerve (on the lateral side of the artery).

Treatment.

It is same as that of Lohithaksham in the upper extremity.

VITAPAM.

This is a Snayu marma, according to Susruta, and Siramarma according to Vagbhata.

Vykalyakaram (1" in extent).

Description of the marma:—

Vankshana vrushanayoh anthare vitapamnama
Thathra shandyamalpasukrathava bhavathi.

The situation of this marma is between the testis and the groin Injury to this leads to impotency or scantiness of sukram (semen)

Anatomical structures corresponding to the marma:—

1. Fasciae binding the several structures of the spermatic cord viz:
   - (*a*) Inter-crural fascia.
   - (*b*) Cremasteric fascia.
   - (*c*) Infundibuliform fascia.
2. Testicular artery and vein.
3. The ductus deferens with the artery supplying it.
4. Testicular nerve.

N. B.—This marma in the female will have to be similarly understood, taking ovary for testis.

Treatment.

It is same as that of Kakshadharam in the upper extremity.

MARMAS IN THE ABDOMEN AND THE CHEST.

(Udaram and Uras)

GUDAM

This is a Mamsa marmam, according to Susruta and Dhamani Marma as per Vagbhata.

Sadyahpranaharam, (4″ in extent).

Description:—

Thathra vathavarcho nirasanam sthoolanthra prathibaddham Gudamnama marma thathra sadhyomaranam.

The situation of this marma is in the recto-anal region where - through flatus and faeces are expelled. Injury to this marma is fatal.

Anatomical structures corresponding to the marma:—

1. Levator ani muscles.
2. External sphincter ani muscle
3. Internal sphincter ani muscle,
4. Inferior haemorrhoidal nerves forming plexus.
5. Inferior haemorrhoidal arteries and veins.

The immediate death is due to shock by stimulation of the nerve-plexuses and the nerves supplying the muscles in the anal region.

Treatment.

For Pain and vertigo:—

Do dhara with ghee.

For Unconsciousness:—

Mix butter with chandanam and stanyam and apply over the bregma.

For delirum (Asambaddha pralapam).—

After churning ghee (seven times in each) ln chathuksheeri, gudoochi and sathavari swarasams, apply it externally.

To heal the Wound:—Ghritam.

Take the juices of dasapushpam, gudoochi and sathavari and add ghee to it. Milk is added 4 times the ghee.

The following drugs are used for kalkam:—

Useeram, chandanam and valakam. Prepare ghritham.

For internal administration:—Ghritam.

Prepare ghritam with jeevanthyadiganam and give internally.

For thirst:—

Chandana kashayam may be given.

For constipation:—

Rub hareethaki in cocoanut water after boiling it in hot water and give internally.

For Pain:—Dhara.

Do dhara with milk and sathavari swarasam.

For Pain:—Lepam.

Sathavari swarasam, milk and butter are churned well and applied externally.

VASTI MARMA.

This is a Snayu marmam.

Sadyahpranaharam. (4" in extent).

Vagbhata describes the shape of the Vasti (Bladder) to be Dhanuvakram, (curved like a bow) and Eka-adhovadanam, (having one outlet in the lower part).

Fig. IX.—Marmas in the Abdomen, Chest and Back.

तत्र वातवर्चोनिरसनं स्थूलान्त्रप्रतिबद्धं गुद नाम मर्म, तत्र सद्योमरणं; अल्पमांसशोणितोऽभ्यन्तरतः कट्यां मूत्राशयो बस्तिर्नाम, तत्रापि सद्योमरणमश्मरीव्रणादृते, तत्राप्युभयतो भिन्ने न जीवति, एकतो भिन्ने मूत्रस्रावी व्रणो भवति, स तु यत्नेनोपक्रान्तो रोहति; पक्वामाशययोर्मध्ये सिराप्रभवा नाभिर्नाम, तत्रापि सद्यो मरणं; स्तनयोर्मध्यमधिष्ठायोरस्यामाशयद्वारं सत्त्वरजस्तमसामधिष्ठानं हृदयं नाम, तत्रापि सद्य एव मरणं; स्तनयोरधस्ताद् द्व्यङ्गुलमुभयतः स्तनमूले नाम (मर्मणी), तत्र कफपूर्णकोष्ठतया कासश्वासाभ्यां म्रियते; स्तनचूचुकयोरूर्ध्वं द्व्यङ्गुलमुभयतः स्तनरोहितौ नाम, तत्र लोहितपूर्णकोष्ठतया कासश्वासाभ्यां च म्रियते; अंसकूटयोरधस्तात् पार्श्वोपरिभागयोरपलापौ नाम, तत्र रक्तेन पूयभावं गतेन मरणं; उभयत्रोरसो नाड्यौ वातवहे अपस्तम्भौ नाम, तत्र वातपूर्णकोष्ठतया कासश्वासाभ्यां च मरणं; एवमेतान्युदरोरसोर्द्वादश मर्माणि व्याख्यातानि ॥

अत ऊर्ध्वं पृष्ठमर्माणि व्याख्यास्यामः तत्र पृष्ठवंशमुभयतः प्रतिश्रोणिकाण्डमस्थिनी कटीकतरुणे नाम मर्मणी, तत्र शोणितक्षयात् पाण्डुर्विवर्णो हीनरूपश्च म्रियते, पार्श्वजघनबहिर्भागे पृष्ठवंशमुभयतो (नातिनिम्ने) कुकुन्दरे नाम मर्मणी, तत्र स्पर्शाज्ञानमधःकाये चेष्टोपघातश्च; श्रोणीकाण्डयोरुपर्याशयाच्छादनौ पार्श्वान्तरप्रतिबद्धौ नितम्बौ नाम, तत्राधःकायशोषो दौर्बल्याच्च मरणं; अधःपार्श्वान्तरप्रतिबद्धौ जघनपार्श्वमध्ययोस्तिर्यगूर्ध्वं च जघनात् पार्श्वसन्धी नाम, तत्र लोहितपूर्णकोष्ठतया म्रियते; स्तनमूलादृजूभयतः पृष्ठवंशस्य बृहत्यौ नाम, तत्र शोणितातिप्रवृत्तिनिमित्तैरुपद्रवैर्म्रियते; पृष्ठोपरि पृष्ठवंशमुभयतस्त्रिकसंबद्धे अंसफलके नाम, तत्र बाह्वोः स्वापशोषौ; बाहुमूर्धग्रीवामध्येंऽसपीठस्कन्धनिबन्धनावंसौ नाम, तत्र स्तब्धबाहुता; एवमेतानि चतुर्दश पृष्ठमर्माणि व्याख्यातानि ॥

Fig IX.—Marmas in the Abdomen, Chest and Back.

Gudam.

1. External sphincter ani muscle.
2. Inferior haemorrhoidal nerves forming plexus.
3. Transverse perinii superficialis muscle.
4. Inferior haemorrhoidal arteries with their corresponding veins.
5. Levator ani muscle.

Vasthimarma.

1. Ureter.
2. Bladder.

Nabhimarma.

1. Inferior epigastric artery and vein.
2. Rectus abdominis muscle reflected.

Hridayamarma.

Heart.

Stanamula.

Base of the lung.

Stanarohitha.

1. Bronchus.
2. Pulmonary artery.
3. Pulmonary vein.

Apalapam.

1. Brachial plexus.
2. Axillary artery.
3. Axillary vein.

Apastambha.

1. Vagus nerve.
2. Common carotid artery.
3. Phrenic nerve.
4. Subclavian vein.

Kateekatharuna.

1. Common iliac artery.
2. External iliac artery with its vein.
3. Sacro-iliac joint ossified.
4. Posterior sacro-iliac ligament.

Kukundara.

1. Sacro-iliac articulation (with sciatic nerve anterior to it.)

Nithamba.

Floating ribs (11th. and 12th. pair)

Parswasandhi.

Vessels in the hilum of the kidney.

Bruhathi.

Vessels in the hilum of the liver (right side.)

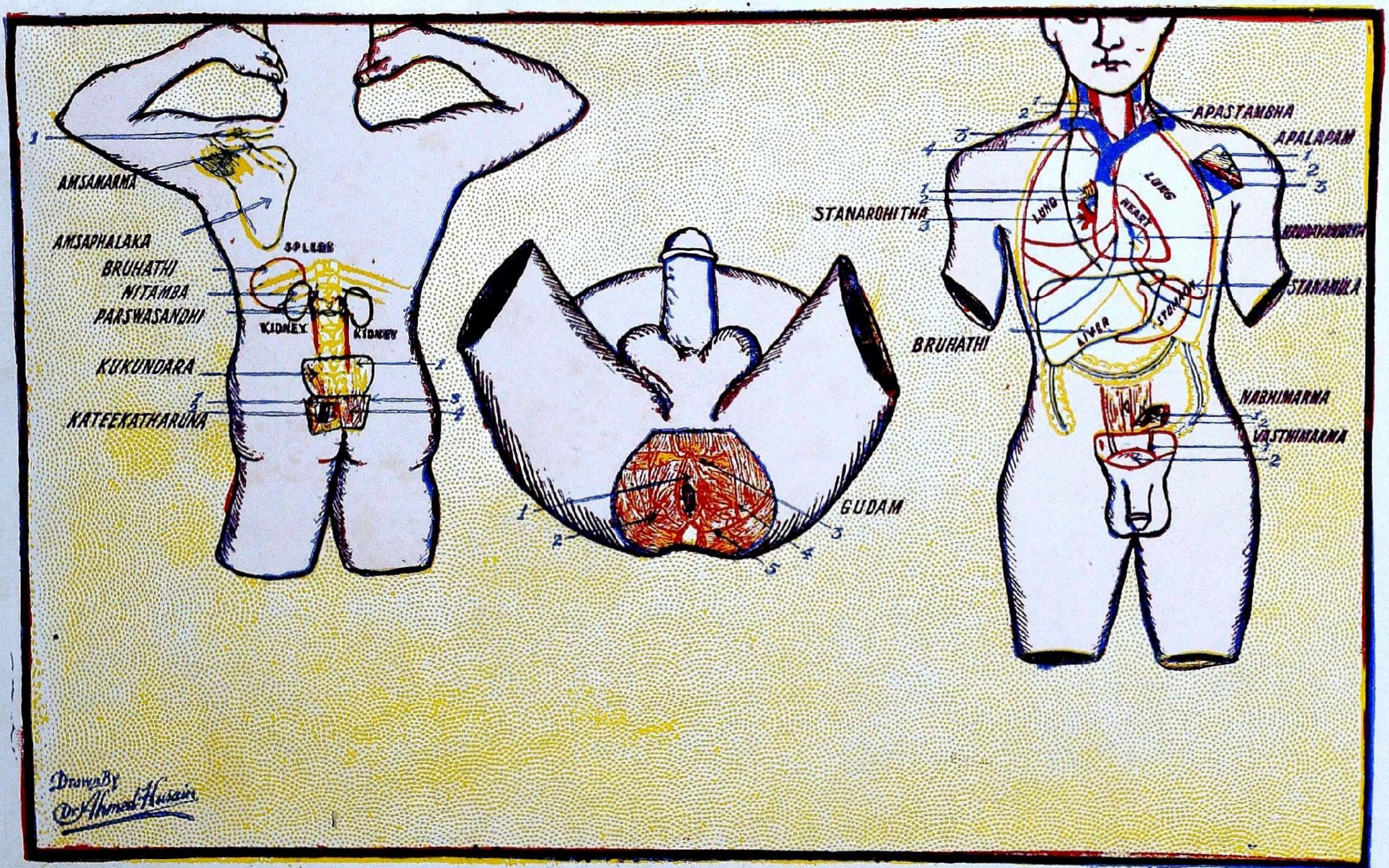
Vessels in the hilum of the spleen (left side).

Amsaphalaka.

Scapula.

Amsamarmam.

1. Superior acromio-clavicular ligament.



AMSAMARMA
AMSAPHALAKA
SPLEEN
BRUHATHI
NITAMBA
PARSWASANDHI
KIDNEY
KIDNEY
KUKUNDARA
KATEEKATHARUNA
GUDAM
APASTAMBHA
APALAPAM
LUNG
LUNG
HEART
STANAROHITHA
STANAMULA
LIVER
STOMACH
BRUHATHI
NABHIMARMA
VASTHIMARMA
Drawn By
Dr. Ahmed Husain

Description of the marma:—

Alpamamsa sonithobhyantharathah katyam moothrasayo vasthirnama
Thathrapi sadyomaranam asmaree vranadruthe
Thathrapyubhayathobhinne najeevathyekatho bhinne
Moothrasravee vranobhavathi sathu yathnenopakrantho rohati.

Description of the marma:—

The situation of the marma is within the Pelvis corresponding to the bladder, whose wall is fibro-elastic with a few plain muscle fibres and blood vessels. Injury to this marma as a whole endangers life immediately, which may be due to tearing of the wall of the base of the bladder and its consequent complications or to shock by the stimulation of the vesical and the hypogastric nerve plexuses and the nerves in the wall of the bladder. There is also danger to life if a stone in the bladder injures its wall on both the sides, but when the lesion is confined to one side, extravasation of urine may occur into the pelvic cellular tissues which can be cured with great effort.

According to Charaka, Vasti, which is the receptacle of urine, is situated amidst Stoola Guda (large intestines and rectum) Mushka (testes), Sevanee (phrenum), and the ducts that carry semen and urine The bladder is to all the water bearing ducts, as is the sea to all the streams. Even as the firmament is pervaded by the rays of the sun, so is the body pervaded by various Marma-saugnaka ducts having their roots in the bladder. Injury to this marma may cause the obstruction to Vata, urine and mala, pain in the groin, penis and bladder, Kundala, Udavartha, Gulma, Bradhna, Vatasteela, Upastambha and griping pain in the navel, abdomen, anus, and the buttocks.

In the affections of Vasti-marma Charaka recommends Kumbhu-sweda, Varti, Niruhavasti and Anuvasana Vasti.

Anatomical structures corresponding to the marma:—

1. The urinary bladder.
2. Vesical plexus coming from the hypogastric plexus.

Treatment.

For Pain:—

Do dhara with equal quantities of oil and ghee.

Lepam for Pain:—

Rub thriphala with milk and mixing it with butter apply externally.

For marma vikarams:—

Give nimbadi kashayam with milk internally.

Or

Patoladi ghritham may be administered internally.

NABHI MARMAM.

This is a Sira marmam.

Sadyahpranaharam,(4" in extent).

Description:—

Pakwamasayormadhye siraprabhava nabhirnama
Thathrapi sadya eva maranam.

The situation of the marma is in between the pakwasayam (intestines) and the amasayam (stomach). This is said to be the origin of all the vessels in the body. Here sira, if taken to mean a nerve or a nerve plexus, immediate death can be explained only by injury to these, which are suddenly stimulated bringing about reflex inhibition of the heart causing instantaneous death.

Anatomical structures corresponding to the marma:—

1. Inferior and superior mesenteric nerve plexuses (from the coeliac and the solar plexuses).
2. Inferior epigastric artery.
3. Inferior epigastric vein.
4. Tendinous inscriptions (three) of the recti muscles with their sheaths.

Treatment.

For pain:—

Do dhara with one part of oil and two parts of ghee.

Kashayam for respiratory troubles:—

Prepare kashayam with ajaji, daru, sriveshtakam, kanyasaram, ela, jalam, useeram, chandanam, musta, kalanusari, misreyam, poothigandha, sathahwa, parpatakam, sunthee and vasamoolam and give internally with sugar and jeerakam. Then the cough, the attendant respiratory troubles and also any neuralgic pain will be relieved.

For swasakasam and marmarogas:—Ghritam.

Prepare kashayam with sakravalli, thiktha, amrathwak, sigrupallavam, chinchadalasira, thumbee, erandam, talavruntham and jeerakam. Add equal quantity of ghee and mix milk four times the quantity of ghee.

Kalkam:—Take paranthi, ajaji, kanyasaram, sahasravedhi, misreya, poothigandham, ambu, chandanam, ela, satahwa, kalanusari and useera in equal quantities.

For sira-kshobham:—Ghritam.

Take yavani, bhoominayagam and sanninayakam for both kashayam and kalkam and prepare ghritham.

Also administer vidaryadi ghritham.

HRIDAYAMARMA.

This is a Sira marmam.

Sadyahpranaharam, (4″ in extent).

Description:—

Sthanayormadhyamadhishtayorasyamasayadwaram
Satwarajasthamasamadhistanam hridayam nama
Thathra sadya eva maranam.

The situation of the marma is between the two breasts. This is near the cardiac end of the stomach and also it is the seat of Sathwa, Rajas and Thamas. Injury to this marma results in immediate death.

According to Charaka, this is one of the three important marmas namely, Siras, Hridaya and Vasti. He describes it as the 'Asraya', for the physical as well as the spiritual 'bhavas' of the human body. It is also the place of 'Ojas' which is said to be the essence of all the seven dhatus. It is also told that in the heart there are ten 'Dhamanees' and in these are centered Pranavayu, Udanavayu, Manas (mind) Budhi (intelligence), Chetana (consciousness) and the 'Maha-bhutas' (five gross elements). Each dhamanee is alloted a particular function and they are described as spokes in the navel of a wheel.

Injury to this marma may cause cough, dysnoea, loss of strength, dryness of the throat, a pain as if drawing the 'cloma' out, protruding of the tongue, dryness of the mouth and the palate, epilepsy, insanity, delirium and loss of consciousness.

Anatomical structures corresponding to this marma:—

Heart as a whole.

N. B —This marma had been classified under sira marmas as the heart originally was a tube which, by gradual dilatation and development, was transformed into a four-chambered organ.

Treatment.

For Paravasyam and Pain:—Dhara.

Ghee	measure	1
Oil	do	¼
Lajam and jeerakam (each) palam		½

Mix all the above and do dhara.

For unconciousness:—

Rub chandanam with stanyam and mixing with butter apply over the bregma.

For fever:—Kashayam.

Shadanga kashayam may be given internally.

For Sira-Sankocham:—Ghritam.

Sathavari swarasam	measures	4
Ghee	,,	1
Milk	,,	2

Kalkam:—Valakam, useeram, jeerakam, chandanam, thiktha-moolam, prepare ghritham and give internally.

For weakness:—

Give ghee with tender cocoanut water.

For thirst & Swasakasam:—

Take jeeraka choornam with ghee.

For increasing weight and Strength:—

Put jeeraka choornam in unboiled rice and after pouring some water, heat it well and evaporate the whole water. Take this boiled rice with ghee.

Peya prepared with the Kashaya of the Maha-Panchamoolas to which Matulunga rasa and Hingu choorna or any of the lavanas may be added.

For Panam :—

Water boiled with Laghu-Panchamoola to which sugar is added may be used as a drink (Panam).

STHANAMOOLAM.

This is a Sira marmam.

Kalanthara pranaharam, (2" in extent).

Description:—

Sthanayoradhasthad dvyangulam ubhayathah sthanamoole nama marmanee

Thathra kaphapoorna koshtathaya kasa swasabhyam mriyathe.

This marma is situated two fingers below the breast on both the sides. Injury to this marma endangers life by filling the koshtam with kapham and causes cough and dyspnoea.

Taking koshtam to mean a cavity, it may mean the chest cavity or the lungs in it, which were originally developed from the alimentary canal (mahasrotas). Here pleurisy with effusion (apyamsa supplied by kapha) or pneumonia in which case, cough and dyspnoea are present, may endanger life in due course.

Anatomical structures corresponding to this marma:—

The bases of the lungs on both the sides.

Treatment.

For Pain:—Dhara.

Mix one part of oil with three parts of ghee and do dhara.

For vamanam:—

Give vacha in hot water.

For purgation:—

Give thumbee swarasam.

For healing the wound:—

(*a*) Lepam. Make a paste of thriphala and milk, add butter and apply.

(*b*) Give nimbadi kashayam internally.

To heal the wound:—Ghritham.

Prepare ghritham with gudoochi swarasam and kalkam of nimbadi-ganam.

STHANAROHITHA MARMA.

This is a Mamsa marmam.

Kalanthara pranaharam, ($\frac{1}{2}$" in extent).

(Sadyah pranaharam according to Vagbhata).

Description:—

Sthanachoochukayoroordhvam dvyangulamubhayathah sthanarohithau nama
Thathra lohithapoornakoshtathaya kasaswasabhyam mriyathe.

The situation of this marma is two fingers above the nipples on both the sides. Injury to this marma leads to haemorrhage (into the lungs or outside the lungs) and endangers life causing cough and dyspnoea.

Anatomical structures corresponding to this marma:—

(*a*) The intercostal muscles.

(*b*) The root of the lung with all the structures in relation to it, viz :—

1. Phernic nerve anterior to the root of the lung.
2. Vagus nerve posterior to the root of the lung.
3. Superior vena cava over the root of the right lung.
4. Descending aorta behind the root of the left lung.
5. Bronchus.
6. Pulmonary artery.
7. The two pulmonary veins.
8. Pulmonary plexuses.
9. Lymphatic vessels.
10. Lymphatic glands.

Treatment.

For Pain and Swelling:—Lepam.

Mix pakwakeerimajja, stanyam and chandanam, make a paste with cocoanut water and apply.

For weakness:—Internally.

Extract the swarasam of kukkutam and give it internally with oil.

APALAPAM.

This is a Sira marmam.

Kalanthara pranaharam, (½" in extent).

Description:—

Amsakootayoradhasthath parsvoparibhagayorapalapau nama
Thathra rakthena pooyabhavam gathena maranam.

The situation of the marma is below the shoulder joint (amsakootam) and above the lateral aspect of the chest (in the axilla). The position of this, Vaghbata says, is in between the Pristavamsam (vertebral column) and uras (chest). Injury to this marma may lead to sepsis secondary to haemorrhage and endanger life in course of time.

Anatomical structures corresponding to this marma:—

1. Brachial plexus with its branches.
2. Axillary artery.
3. Axillary vein.
4. Lymphatic vessels in the axilla.
5. The deltoid branch of the thoraco-acromial artery which is the branch of the axillary artery.

Treatment.

Lepam for pain:—

Rub thriphala with milk and mixing with butter, apply externally.

Lepam to heal the wound:—

Pound kadambathwak and churn it well in water. The foam that appears on churning, is to be applied externally.

For unconsiousness(fainting) :—

Mix butter with sthanyam and apply over the bregma.

The treatment given for Apasthambham holds good for Apalapam also.

APASTHAMBHA MARMA.

This is a Sira marmam, according to Shusruta. Vaghbata describes this to be Dhamaneemarma.

Kalanthara pranaharam, (½" in extent.

Description:—

Ubhayathro rasonadyau vathavahe apasthambhau nama
Thathra vathapoornakoshtathaya kasasw isabhyam maranam.

The situation of the marma is on both the sides of the chest. Corresponding to this marma there is in the chest the bronchus one on either side through which air is conducted. If bronchus is taken as a sira (vatavaha), injury to it, fills up the chest cavity with air causing cough and dyspnoea and endangers life duly. The effect of injury to this Marma according to Vaghbata will be filling of the Kostam with blood.

Anatomical structures corresponding to this marma:—

(1) Bronchus.
(2) Phrenic nerve.
(3) Vagus nerve.
(4) Common carotid artery.
(5) Subclavian vein.

Treatment.

For Pain and swelling:—Dhara.

(*a*) Do dhara with equal quantities of oil and ghee.

(*b*) Powder jeerakam and lajam, mix with equal quantities of oil and ghee and do dhara.

For vayukshobham:—Respiratory distress.

(*a*) Rub jeerakam with milk and give internally.

(*b*) Rub kirathathiktam, thamboolam, jeerakam and chandanam in tender cocoanut water and give internally.

(*c*) Prepare ksheera-kashayam with thalapallavam, amrapallavam, useeram, thumbee, valakam and give it internally with jhareera choornam.

For Pithaprakopam:—Kashayam.

Prepare kashayam with useeram, sunthee and thalapallavam and give it internally with jeeraka choornam.

For vayu:—

Prepare kashayam with thumbee, sakralatha, thikthakamoolam, the pallavams of sigru, thalam and amram and jhareera, lasuna, ajaji, valakam, useeram and chandanam and give it internally with gandhamarjara beejam.

Another kashayam for respiratory trouble:—

Prepare kashayam with jeerakam, poothigandha, ajaji jhareera, bala, chandanam and valakam and give it internally in the morning.

For all marmakopas:—

Prepare kashayam with baladwayam, kiratham, valakam, useeram, jeerakam, vajravalli, vasamoolam, bhadra, devi and chandanam and give it with ghee and sugar.

For vayukshobham and to heal the wound:—

Churn ghee in chatuksheeri kashayam and apply this ghee externally.

MARMAS IN THE BACK.

KATEEKATHARUNA MARMA.

These are two in number.
They are Asthi marmas.
Kalanthara pranaharam, (½″ in extent).

Description:—

Thathra prushtavamsamubhayathah prathi sroneekandamasthinee
Kateekatharune nama marma
Thathra sonithakshayath pandurvivarno heenaroopascha mriyathe.

The situation of these marmas is on both the sides of the vertebral column corresponding to the posterior aspect, of the ilium. Fracture of this bone may affect the important pelvic organs and cause death duly by complications such as pallor, anaemia and emaciation. Sepsis also may bring forth the above complications.

Anatomical structures corresponding to this marma:—

(1) The posterior aspect of the ilium (bone).

(2) Bifurcation of the common iliac artery opposite the lumbo-sacral articulation, into the external iliac and the hypogastric arteries and the corresponding iliac veins.

(3) Sacro-iliac ligaments

Treatment.

For pain:— Lepam.

Churn ghee with the juices of gojihwa, lakshmana, doorva, sathavari and gudoochi. Apply this ghee externally.

To relieve pain:—Swedam

Prepare a potali (bundle) with kamgu and after heating it do swedam.

For anaemia and as a diuritic:—

Gomootram	measures	...	4
Bringaraja swarasam	,,	...	4
Sugar	palams	...	28
Neelamra pallava choornam	,,	...	3
Loha choornam	,,	...	½
Purana kittam	,,	...	½
Hareethaki	,,	...	25

Vibheethaki, amalaki, thrivrith, each equal to hareethaki choornam.

Prepare lehyam with the above drugs and administer it, the dose being the size of a vibheethaki.

For pain:—Kashayam.

(a) Prepare kashayam with eranda-moolam, bala-moolam, bilwa-moolam, kuluttham, useeram and chandanam and give it internally with sugar.

(b) Prepare kashayam with balamoolam, sahacharam, devadaru, aswagandha and sunthee and give it internally with ghee.

KUKUNDARA MARMA.

These are two in number.
These are Sandhi marmas.
Vykalyakaram, (½" in extent).

Description:—

Parsvajaghana bahirbhage prushtavamsamubhayatho
nathinimne kukundare nama marmanee
Thathra sparsaagnanamadhahkaye cheshtopaghathascha.

The situation of these marmas is on both the sides of the vertabral column, corresponding to the sacro-iliac articulation anterior to which the sciatic nerve passes. Injury to this marma leads to complete anaethesia and inability to use the lower extremity.

Anatomical structures corresponding to the marma:—

The sacro-iliac articulation over which the sciatic nerve, arising from the sacral plexus, passes and emerges out of the pelvis through the greater sciatic foramen.

Treatment.

For pain:—Dhara.

Dhara with gingely oil is specially indicated here.

For swelling and also to heal the wound:—

Rub narikelapushpa, thriphala, mustha, bhuthalam, gudoochi and jamboopallavam with milk, mix it with butter and apply externally.

To heal the wound:—

Powder the drugs of the above prescription and mixing them with ghee and oil, apply externally.

For abyanganam:—

Bala thailam is indicated.

For pain and swelling:—Lepam.

Parandeethraya (samoolam), dasapushpam, chatuksheerithwak, kuhalidwayam, ambashta and prenkhanatwak and triphala.

The Juices of the above drugs	measures	16
Milk	,,	4
Cocoanut milk	,,	4

Boil them well, mix it with butter and apply externally.

For swasakasam:—Lehyam.

Boil vasapatra swarasam with sugar and gudam and prepare lehyam by adding the choornams of the following drugs :—Thrikatu, thandulee-shatkam, lavangam, jharira, jeerakam, ajaji, lajam and patram. Give this internally.

NITHAMBA MARMA.

These are two in number.

These are Asthi marmas.

Kalanthara Pranaharam (½" in extent).

Description:—

Sroneekandayoruparyamasayachhadanau parsvanthara prathibadhhau nithambau nama
Thathradhahkayasosho daurbalyacha maranam.

The situation of the marma is above the sroneekandam (Pelvic girdle) and on both the sides of the vertebral column. Injury to this marma leads to the atrophy of the lower limb and endangers life in course of time.

Instead of the description "Amasayachadanam" Vaghbata says Asayachadanam, i.e., covering or protection for the organs, and also adds that they are 'Tharunastigou' i. e., cartilagenous. He says Sopha (Swelling) is the effect of injury caused to the Marma.

Anatomical structures corresponding to the marma:—

(1) Floating ribs.

(2) Lumbar plexus and other important structures nearby.

Treatment.

For pain:—Dhara and oil-bath.

Use bala thailam.

For paravasyam:—

Give dasamoola kashayam internally.

For pain and swelling:—Lepam.

Take sahacharam, paranthi, ksheerivrukshathwak, pathatwak and thripala for kashayam. Add milk and cocoanut milk. Again boil the same till it becomes a solid. Rub well with navaneetham and make a paste.

For pain and healing the wound:—Externally.

Use santharpana lepam.

For swasakasam:—Lehyam.

Add sugar and gudam to sathavariswarasam, boil well and add choornams of jeerakam, ajaji, thrikatu, lajam and patram. Prepare a lehyam and give.

For healing the wound:—Ghritham.

Prepare a ghritham with the kashayam and kalkam of kanyasaram, sarjarasam, nimbadi ganam and chicken.

For healing the wound:—Guggulvadi choornam.

Take guggulu palams 5, thrutee, yashti, twak, triphala and kana, each ¼ palam. Powder of the above drugs is to be given with honey.

For healing the vranam:—Lepam

Take chitrabeejam, triphala, musta, Sathavaree-patram, thilam, jeerakam, kuhaleedwayam, lajam and ksheeree-druma-twak. Boil the above drugs in milk and dry them in the hot sun. Then powder them, mix with ghee and apply externally.

For vranam:—Internally.

(a) Take the powder of thandulee-shatkam, sunthee, ajaji, vara, maricham, jeerakam, bharangee, kalanusari, pippalee, jharira and guggulu and give it internally with honey.

(b) Give nimbadi kashayam with guggulu choornam and honey.

For emaciation due to kshatham:—Lepam.

Make a lepam with thriphala choornam and ghee and apply externally.

PARSWASANDHI MARMA.

These are two in number.

These are Sira marmas.

Kalanthara pranaharam, (½" in extent).

Description:—

Adhah parswantharaprathibadhau jaghana parswamadhyayosthiryagoordhwamcha jaghanathparswasandhee nama Thathra lohitha poornakosthathaya mriyathe.

The situations of these marmas are between the costal cartilages and the pelvis, corresponding to the vessels of the kidney fixed medialwards and upwards. Here taking kostam to mean abdominal cavity, the blood resulting from injury to the marma, collects in the abdominal cavity and causes danger to life duly.

Anatomical structures corresponding to the marma:—

The renal artery (arising from the abdominal aorta) and the renal vein.

Treatment.

For Pain and Swelling:—Dhara.

Mix well equal quantities of oil and ghee and do dhara.

For Pain:—Lepam

(*a*) Rub the moolams of narikelam, kramukam, thalam and oorvaru-beejam with kanjikam and apply externally.

(*b*) Mix rambhaphalam, sitha, stanyam and butter and apply externally.

(c) Powder equal quantities of masham, mudgam, sarjarasam, aswagandha and arrow-root, mix with equal quantities of cocoanut milk and cow's milk and apply externally.

For unconsciousness (fainting):—

Rub chandanam in stanyam and adding navaneetham apply over the bregma.

For virechanam:—Kashayam.

Thiriphala kashayam with castor oil.

For astheesaram:—

Give thriphala kashayam with honey.

For vranam:—

Give guggulwadi choornam with honey.

BRUHATHI MARMA.

These are two in number.

These are Sira marmams.

Kalanthara Pranaharam. ($\frac{1}{2}''$ in extent).

Description:—

Sthanamooladubhayathah prushtavamsasya bruhathee nama thathra sonithathi pravrutthi nimitthaih upadravaih mriyathe.

The situation of these marmas is from the base of the breasts reaching the vertebral column on both the sides. Injury to these marmas leads to continuous bleeding and endangers life in course of time by complications.

Anatomical structures corresponding to these marmas:—

1. On the right side, the vessels at the hilum of liver.

2. On the left side, the vessels at the hilum of the spleen.

Treatment.

For Pain:—Lepam.

Rub with milk, kathakam, thriphala, varee, useeram, mustha and himam, mix with butter and apply externally.

For pain and swelling:—Lepam.

Churn well the mixture of milk, ghee and gojihwa-swarasam. Apply this ghee externally.

For kshatham:—

Rub gojihwa, mudgam, kathakam veera-patram, and aswagandha with milk, mix with butter and apply externally.

For virechanam:—Kashayam.

Give thriphala kashayam.

For vranam:—

Give internally the kashayam of the bark of kadambam with sugar.

AMSAPHALAKA MARMA.

These are two in number.
These are Asthi marmas.
Vykalyakaram. (½" in extent).

Description:—

Prushtopari prushtavamsamubhayathah
Thrikasambaddhe amsaphalake nama
Thathra bahossvapassoshova.

The situation of these marmas is on both the sides of the vertebral column and on the uppermost part of the back. Injury to these marmas leads to numbness or atrophy of the upper extremity due to injury of the nerves on the anterior surface of the scapula (vide below).

Anatomical structures corresponding to the marma:—

1. Scapula.

2. The nerves that supply the muscles attached to the scapula. (Branches of the brachial plexus from the supra-clavicular division and also from the posterior cord of the infraclavicular division)

3. The blood vessels there.

Treatment.

For Pain:—Lepam.

(*a*) Mix butter with the juices of gojihwa and lakshmana and apply externally.

(*b*) Apply externally equal quantities of gingely oil and ghee.

For pain and weakness:—Kashayam.

Prepare kashayam with sathavari, mudgam and jalam and give internally with milk.

For healing the kshatham :—Lepam.

Take the juices of priyala, doorva, gojihwa and lakshmana, mix milk and butter to make a paste. Apply this externally.

Or

Rub gojihwa, lakshmana, doorva, and kuhalee-dwayam with milk and mixing it with butter apply externally.

AMSA MARMA.

These are two in number.

These are Snayu marmas.

Vykalyakaram, (½″ in extent).

Description:—

Bahumoordhagreevamadhye amsapeethaskandha nibandhanavamsau nama

Thathra sthabdhabahutha.

The situation of this marma is between the shoulder on one side and the head and neck on the other. Here there are ligaments binding the scapula with the collar bone. Injury to the marma makes the upper extremity functionless due to injury to the concerned ligaments.

Anatomical structures corresponding to this marma:—

1. Coracoclavicular ligaments.
2. Conoid ligament.
3. Trepezoid ligament.
4. Superior acromioclavicular ligament.
5. Coraco-acromial ligament.

Treatment.

For pain :—

Do dhara with ghee for 7 days.

Dhara for pain and swelling :—

Mix oil, ghee and milk and do dhara.

For paravasyam :—

Apply ghee all over the body.

For swelling and healing the wound :—Lepam.

Thiriphala choornam is rubbed with santharpana lepam and applied for fourteen days.

Fig. X.—Marmas in the Head & Neck.

अत ऊर्ध्वमूर्ध्वजत्रुगतानि व्याख्यास्यामः—तत्र कण्ठनाडीमुभयतश्चतस्रो धमन्यो द्वे नीले द्वे च मन्ये व्यत्यासेन, तत्र मूकता स्वरवैकृतमरसग्राहिता च; ग्रीवायामुभयतश्चतस्रः सिरा मातृकाः, तत्र सद्योमरणं; शिरोग्रीवयोः सन्धाने कृकाटिके नाम, तत्र चलमूर्धता; कर्णपृष्ठतोऽधःसंश्रिते विधुरे नाम, तत्र बाधिर्यं; घ्राणमार्गमुभयतः स्रोतोमार्गप्रतिबद्धे अभ्यन्तरतः फणे नाम, तत्र गन्धाज्ञानं; भ्रूपुच्छान्तयोरधोऽक्ष्णोर्बाह्यतोऽपाङ्गौ नाम, तत्रान्ध्यं दृष्ट्युपघातो वा; भ्रुवोरुपरि निम्नयोरावर्तौ नाम, तत्राप्यान्ध्यं दृष्ट्युपघातो वा; भ्रुवोः पुच्छान्तयोरुपरि कर्णललाटयोर्मध्ये शङ्खौ नाम, तत्र सद्योमरणं; शङ्खयोरुपरि केशान्त उत्क्षेपौ नाम, तत्र सशल्यो जीवति पाकात् पतितशल्यो वा नोद्धृतशल्यः; भ्रुवोर्मध्ये स्थपनी नाम, तत्रोत्क्षेपवत्; पञ्च सन्धयः शिरसि विभक्ताः सीमन्ता नाम, तत्रोन्मादभयचित्तनाशैर्मरणं; घ्राणश्रोत्राक्षिजिह्वासन्तर्पणीनां सिराणां मध्ये सिरासन्निपातः शृङ्गाटकानि, तानि चत्वारि मर्माणि, तत्रापि सद्यो मरणं; मस्तकाभ्यन्तरत उपरिष्टात् सिरासन्धिसन्निपातो रोमावर्तोऽधिपतिः, तत्रापि सद्य एव । एवमेतानि सप्तत्रिंशदूर्ध्वजत्रुगतानि मर्माणि व्याख्यातानि

Fig. X.—Marmas in the Head & Neck.

Neelamanya.

1. Internal jugular vein.
2. Common carotid artery.
3. Glossopharyngeal nerve.
4. Hypoglossal nerve.
5. Lingual artery.
6. Stylohyoid muscle.
7. Lingual vein.
8. Internal carotid artery.
9. External carotid artery.

Mathruka.

1. Phrenic nerve.
2. Vagus nerve.
3. Internal jugular vein.
4. Common carotid artery.
5. Subclavian vein.
6. Subclavian artery.
7. Sternothyroideus muscle.
8. External jugular vein.

Krikatika.

1. Atlas.

2 and 2a. Lateral atlanto-occipital ligaments.

3. Occiput bone.
4. Posterior atlanto-occipital membrane.

Vidhura.

Surface marking. For details see Fig. XI.

Phana.

Surface marking. For details see Fig XII.

Apanga.

Surface marking. For details see Fig. XI.

Avartha.

Surface marking. For details see Fig. XI.

Sankha.

1. The thinnest portion of the temporal bone.

Utkshepam.

1. Temporalis muscle.
2. Frontal branch of the superficial temporal artery.
3. Zygomatico-temporal nerve.

Sthapani.

1. Emissary vein emerging from the foramen caecum joining the superior sagittal sinus.
2. Cristagalli exposed.

Seemantha.

1. Frontal suture (one).
2. Parietal sutures (two, one on either side).
3. Lambdoid suture (one).
4. Sagittal suture (one)

Srungataka.

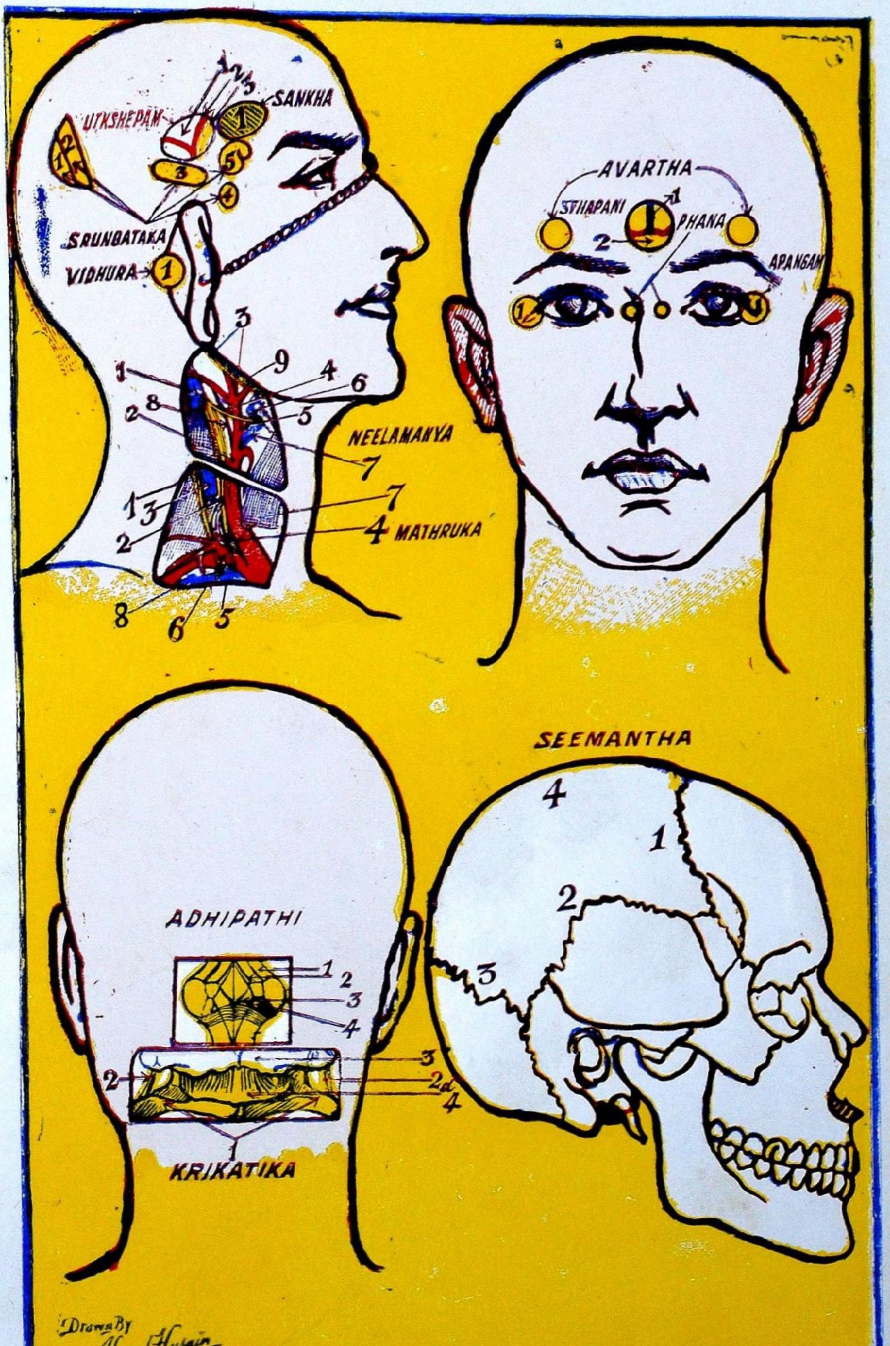
1. Visuo-sensory centre.
2. Visuo-psychic centre.
3. Centre for hearing.
4. Centre for taste and smell.
5. Centre for speech (Broca's), see also fig. XII.

Adhipathi.

Dorsal view.

1. Middle peduncle of the cerebellum.
2. Superior peduncle of the cerebellum.
3. Medulla oblongata.
4. Inferior peduncle.

For ventral view see fig. XI.


SANKHA
UTKSHEPAM
SRUNGATAKA
VIDHURA
NEELAMANYA
MATHRUKA
AVARTHA
STHAPANI
PHANA
APANGAM
SEEMANTHA
ADHIPATHI
KRIKATIKA
Drawn By
Dr. Ahmed Husain

MARMAS IN THE HEAD AND NECK.

In the head are situated several important marmas, Charaka says that in this marma are centered the five Indrias and also the Indria pranavaha Srotas (the nerves that carry the impulses to and from them) just as the rays are centered in the sun. Injury to the head may cause wry-neck, facial paralysis, deviation of the eyes, swooning. loss of motor functions, cough, difficulty of breathing, lock-jaw, dullness, slowness of speech, closing of the eyes, tremor of the cheek, yawning, salivation, loss of voice, and distortion of the face.

Charaka advocates the following methods of treatment in injuries to siro-marmas:—

Abhyanga, Sweda, Upanaha, Snehapana, Nasya Karma and Avapeedana dhuma.

NEELAMANYA MARMA.

These are four in number.
These are Sira marmas.
Vykalyakaram, (4" in extent).

Description:—

Thathra kanthanadeemubhayathaschathasro dhamanyo dve neele dve cha Manye vyathyasena thathra mookatha swaravaikrutham arasagrahitha cha

The situation of these marmas is on either side of the kanthanadi (trachea) high up in the neck. The four marmas correspond to four structures, two neelas and two manyas. One neela and one manya lie side by side on each side of the neck each corresponding to a marma. Taking the neela (blue coloured) as a vein (lingual vein here), the

lingual artery lying adjacent to it may be taken as a manya. Vaghbata says that these are 'Hanusamasritou' i.e., situated near the Hanusandhi (Mandibulo-maxillary joint).

The change of voice, dumbness and the loss of the sense of taste resulting from injury to these marmas, can be explained by the affection of the hypoglossal (motor nerve for the tongue) and the glassopharyngeal (sensory nerve for the tongue) nerves situated nearby secondary to want of proper blood supply to the tongue, one of the few organs which are richly supplied with blood in the body.

Anatomical structures corresponding to this marma :—

1. Lingual artery.
2. Lingual vein.
3. Hypoglossal nerve.
4. Glossopharyngeal nerve.

Treatment.

For pain :—Lepam.

Prepare a paste with milk and thilam, add buttter and apply.

For pain and swelling: —Lepam.

Make a paste with the swarasams of bala, gudoochi, vara and kumudakandam, add milk and butter and apply.

Rub triphala and kumudakandam with the juices of balamoolam and gudoochi and mixing with milk and butter apply externally.

Rub jalam, amrathakatwak, arimedatwak with milk and mixing with butter apply externally.

For relieving pain and healing the wound:—

Rub with milk equal quantities of useeram, chandanam and jalam, and mixing with oil, tender cocoanut water and ghee, make a lepam and apply externally.

For healing the wound:—

If this marma is injured, do dhara with ghee on the 4th day and with santharpana lepam on the 7th day.

MATHRUKA MARMA.

These are eight in number.

These are Sira marmas.

Sadyahpranaharam, (4" in extent).

Description :—

Greevayamubhayathaschathasrassirah
Mathrukasthathra sadyomaranam.

The situation of these marmas is on both the sides of the lower portion of the neck. There are four marmas on each side of the neck. Injury to any one of these marmas causes severe haemorrhage leading to collapse and death immediately.

These are described by Vaghbata to have been situated in Jihwa (tongue) and Nasa (nose).

Anatomical structures corresponding to these marmas:—

1. Common carotid artery.
2. Internal and external jugular veins.
3. Subclavian artery.
4. Subclavian vein.
5. Vagus nerve.
6. Phrenic nerve.

N. B.—Sira is used here for a blood vessel and each vessel (1, 2, 3, & 4) corresponds to a marma on each side.

Treatment.

For pain :—Dhara.

Do dhara with ghee.

Do dhara with equal quantities of gingely oil and ghee.

For fainting :—Lepam.

Rub chandanam with stanyam and navaneetham and apply over the bregma.

For pain of the wound :—

Do dhara with bala thailam.

For kshayam and sambhramanam :—Externally.

Use pancha snehams for oil bath.

Internally:— Administer dhanvanthara ghritham or vidaryadi ghritham or swaduchathushka ghritham with sugar.

KRIKATIKA MARMA.

These are two in number.

These are Sandhi marmas.

Vikalyakaram, (½" in extent).

Description :—

Sirogreevayossandhane krikatike nama
Thathra chalamoordhatha.

The situation of these marmas is between the head (occiput) and the upper part of the neck corresponding to the atlanto occipital articulation. Injury to these marmas leads to shaking or abnormal movement of the head (chalamoordhata), due to dislocation of the joint.

Anatomical structures corresponding to these marmas:—

1. Articulations of atlas with the occipital bone.
2. The ligaments attached to the articulating bones.
   (*a*) Atlanto-occipital membrane.
   (*b*) Lateral atlanto-occipital ligament.

For retention of urine:--Internal medicine.

Take ela choornam with cocoanut water.

VIDHURA MARMA.

These are two in number.

These are Snayu marmas according to Sushruta, but Siramarma according to Vagbhata.

Vikalyakaram, (½" in extent).

Description:—

Karnaprushtatho adhah samsrithe vidhure nama thathra badhiryam.

The situation of this marma is behind the pinna of the ear (karna prushtam). It corresponds to the tympanic membrane (snayu) within the petrous portion of the temporal bone. Since this is a snayu marma, the tympanic membrane may be taken as the first structure to be injured causing deafness. Deafness results also from injury of the middle or internal ear.

Anatomical structures corresponding to these marmas:—

1. Tympanic membrane
2. Structures in the middle ear.
3. Branches of the acoustic nerve (8th. cranial nerve and the nerve of hearing).

N.B.—The size of the marma is provisionally taken as half an inch though it is not found mentioned clearly anywhere.

Treatment.

To heal the wound:—

Rub thriphala, nisa, gudoochi, vata-moolam, vata-ankuram, thilam, chitraka-beejam, mustha and sarshapam with milk, mix it with butter and apply externally.

For pain:—Dhara.

Mix gingely oil with ghee and do dhara.

PHANA MARMA.

These are two number.
These are Sira marmas.
Vikalyakaram, ($\frac{1}{2}''$ in extent).

Description:—

Ghranamargamubhayathah srothomargaprathibaddhe
Abhyantharathah phane nama thathra gandhaagnanam.

The situation of this marma is in the interior (Abhyantharathah) of both the nasal cavities. Injury to this marma leads to the loss of sense of smell.

Vagbhata contends that these are situated in the interior of the throat (Galam).

Anatomical structures corresponding to this marma:—

1. The filaments of the olfactory nerve going up through the cribriform plate of the ethmoid bone to enter the olfactory bulb resembling the hood (phana) of a snake.

Injury to this marma leads to the loss of the sense of smell, since the olfactory filaments (sensory), which carry the impulses of the sense of smell, are destroyed.

Treatment.

For pain:— Lepam.

Ghee is churned well in gudoochi swarasam and applied.

For Virechanam:—

Give thripala kashayam.

For retention of urine:—

Ela choornam mixed in tender cocoanut water is recommended.

For healing the vranam:—

Boil rice in gojihwa-swarasam, add chandanam, rambhaphalam and butter. Prepare a paste to be applied over the bregma.

APANGA MARMA.

These are two in number.

These are Sira marmas according to Sushruta. Vagbhata includes this under Snayumarmas.

Vikalyakaram. (½″ in extent).

Description:—

Bhroopucchanthayoradhah akshnorbahyatho apangaunama Thathrandhyam drushtyupaghathova.

The situation of this marma is near the external canthus of each of the eyes and below the lateral end of the eyebrows (super-ciliary arches). Injury to this marma leads to blindness or impaired vision by trauma to the optic and other nerves supplying the eye on its lateral margin.

Anatomical structures corresponding to these marmas:—

1. Optic nerve (2nd. cranial) and its branches (ciliary nerves).

2. Lachrymal nerve (from the ophthalmic division of the 5th. cranial nerve).

3. Abducens (6th. cranial nerve supplying rectus lateralis muscle).

Treatment.

For pain in the eye:—Dhara.

For pain do dhara with oil and apply karpoora choornam into the eye.

For pain and swelling:—Lepam.

Rub ikshu-moolam, jalam, useeram, thriphala, doorva, thilam, gudoochi and chandanam with milk and after mixing with ghee, apply externally keeping the eyes closed.

For Pain and swelling:—Mrudveekadi kashayam.

Prepare kashayam with draksha, yashti, suradrumam, chandanam, mustha, useeram, vibheethaki, amalaki, hareethaki, ikshu, lodhra and rajani and give internally with honey.

For pain and redness of the eye:—Lepam.

Tender cocoanut water	measures	9
Darvi Choornam	palams	2
Thripala ,,	,,	3
Yashti ,,	,,	4

Boil the above till it attains sandrapakam. Then merely rub this in a khalwam for four hours. Add honey and rub for two hours. Add saindhavam (¼th palam) and karpooram (¼th palam) and rub for three hours. Use this as an anjanam (collyrium).

Chandanadi guitika:—

Prepare a varthi with jathimukulam, laksha, gyrikum and chandanam. Rub the varthi with honey and apply into the eye.

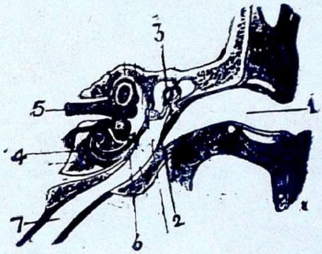
AVARTHA MARMA.

These are two in number.
These are Sandhi marmas.
Vykalyakaram, (½" in extent).

Description:—

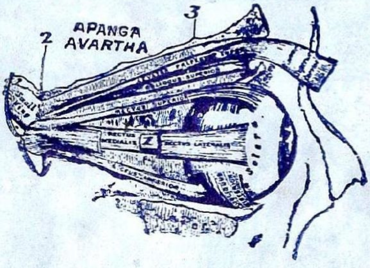
Bhruvoruparinimnayoravarthau nama
Thathrandhyam drushtyupaghathascha.

Fig. XI.—Marmas in the Head.



Vidhura.

1. External acoustic meatus.
2. Tympanic membrane.
3. Middle ear with three ossicles.
4. Internal ear.
5. Acoustic (eighth) nerve.
6. Petrous portion of temporal bone.
7. Auditary tube leading to pharynx.



Apanga.

1. Optic nerve.
2. Articulation of small wing of the sphenoid with the orbital plate of the frontal bone.
3. Orbital plate of the frontal bone.

Avartha.

1. Anterior centre for eye movements. Vide Figure XII Avartha(surface of the brain).
2. Articulation of the small wing of the sphenoid (2) with the orbital plate of the frontal (3) in the apanga marma.

Adhipathi.

Ventral view.

1. Roots of the fifth nerve.
2. Pons.
3. Its upper fibres.
4. Pyramids.
5. Olivary bodies.
6. Restiform bodies.
7. Anterior column of spinal cord.
8. Lateral column of spinal cord.

Fig XII.—Marmas in the Head (contd.)

Avartha.

Anterior centre for eye movements (frontal lobe).

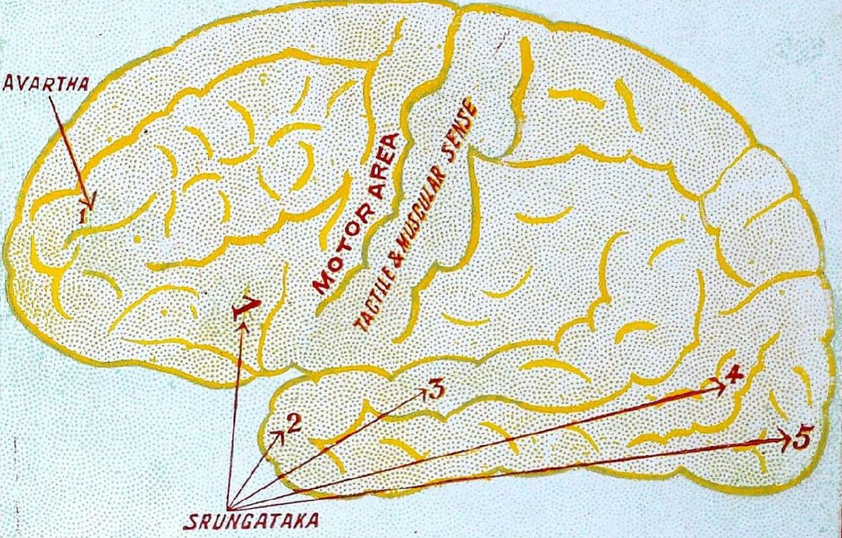
Srungataka.

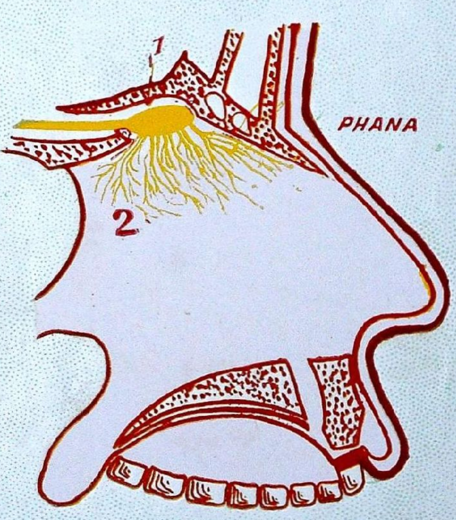
Centres on the surface of brain.

1. Centre for speech (Broca's).
2. Centre for taste and smell.
3. Centre for hearing.
4. Visuo-psychic sphere.
5. Visuo-sensory sphere.

Phana.

1. Olfactory bulb.
2. Ramifications of the olfactory nerve going up through the cribriform plate of the ethmoid bone to enter the olfactory bulb.





Drawn By
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The situation of this marma is on the surface of the frontal lobe of the brain, underneath the groove above the superciliary arch (eye brow) on both the sides corresponding to the articulation of the posterior border of the orbital plate with the small wing of the sphenoidal bone. Injury to this marma causes impaired vision or blindness from injury to the visual centre on the surface of the brain or the optic chiasma.

Anatomical structures corresponding to this marma:—

1. Articulation of the sphenoid bone with the orbital plate of the frontal bone.

2. Anterior centre for the movements of the eye, situated in the frontal lobe.

3. Optic chiasma

Treatment.

For pain:—Lepam.

Apply, sthanyam with navaneetam, over the head.

For sosham:—Externally.

Apply a mixture of equal parts of ghee and gingely oil.

Kashayam:—Internally.

Balamoolam	palam	1
Mudgam	measures	¾
Milk	,,	¼

Prepare kashayam and give it internally with sugar.

For pain and swelling:—Lepam.

Rub musta and kuhalithandulam, add ghee and after churning this in the swarasams of gudoochi, gojihwa and lakshmana apply externally.

SANKHA MARMA.

These are two in number.
These are Asthi marmas.
Sadyahpranaharam, (½" in extent).

Description:—

Bhruvoh pucchanthayorupari karna lalatayormadhye Sankham nama thathra sadyomaranam.

The situation of this marma is in between the ear and the brow just above the termination of the superciliary arch (eyebrow). It corresponds to the temple. Injury to this marma endangers life immediately.

As the temporal bone is very thin here, even a trivial injury is transmitted directly to the brain underneath. Injury to the base of the brain, where the basal ganglia are present, results in immediate death.

Anatomical structures corresponding to these marmas:—

The thin temporal bone with the temporal lobe behind and underneath this, the basal ganglia inside the brain near its base.

Treatment.

Do jaladhara first.

For pain and swelling:—

Take the juices of gojihwa and sathawari each one measure, milk quarter measure, and useera kashayam two measures. Mix them and give internally with sugar.

This is good for all marma-kopas generally and especially for Sankha marma.

For healing the wound:—

Mix boiled rice with butter and apply externally.

UTKSHEPA MARMA.

These are two in number.
These are Snayu marmas.
Visalyaghnam, (½″ in extent).

Description:—

Sankhayoruparikesantha utkshepau nama thathra sasalyo jeevathi
Pakath pathithasalyo va noddhrutha salyah.

The situation of this marma is above the Sanka marma and near the hairy margin on the scalp (parietal region on the scalp) on both the sides of the head. Injury to this marma by a foreign body, keeps the person alive as long as it is kept within the wound until it falls down on its own accord, after the formation of granulation tissue, which acts as a protective barrier between the salyam (foreign body) and the injured tissues of the body. But if it is drawn out by force immediately after injury, the person dies at once due to sudden loss of nervous energy.

Anatomical structures corresponding to the marma:—

1. Temporal fascia.
2. Parietal branch of the superficial temporal artery.
3. Zygomatico-temporal nerve.
4. Temporalis muscle.
5. The brain with its coverings (duramater, arachnoid and piamater) underneath the temporal bone corresponding to the marma.

Treatment.

The foreign body should not be removed before the part is inflamed. Otherwise the patient will die immediately.

The rest of the treatment is same as that of Sankha marma.

STHAPANI MARMA.

This is a Sira marma.

Visalyaghnam, (½" in extent).

Description:—

Bhruvormadhye sthapanee nama
Thathrotkshepavath.

The situation of this marma is in between the two super-ciliary arches (underneath the bony vault). Injury to this marma leads to the same consequences as in Utkshepa marma. If the foreign body is removed from the wound immediately after injury, severe bleeding results from the brain through the vein (sira) communicating with a big sinus (vide below) resulting in loss of nervous energy and death.

Anatomical structures corresponding to the marma:—

1. A vein from the nose entering through the foramen caecum (where the sagittal sulcus ends anteriorly) joins the superior sagittal sinus.

2. The brain with its coverings underneath the frontal bone corresponding to the marma

Treatment.

It is same as that of Utkshepa marma.

SEEMANTHA MARMA.

These are five in number.
These are Sandhi marmas.
Kalanthara pranaharam, (4" in extent).

Description:—

Pancha sandhayassirasi vibhakthasseemantha nama thathronmada bhaya chittanasairmaranam

The situation of these marmas is in the scalp. They correspond to the five important sutures (dovetailed articulations) of the skull. Injury to these marmas leads to

insanity, fear and intellectual disturbances from trauma to the lobes of the brain underlying the corresponding sutures.

Anatomical structures corresponding to these marmas:—

1. Sagittal suture (one).
2. Parietal sutures (two).
3. Occipital (Lambdoid) suture (one).
4. Frontal suture (one).

N. B.—(a) Frontal lobes are said to be the seat of originality and intellectual or associational functions.

(b) Sensory areas are underneath the parietal bones.

Treatment.

For paribhramam:—

Give chathurjatha choornam with tender cocoanut water.

The treatment given for Sringataka marma is applicable here also.

SRINGATAKA MARMA.

These are four in number.

These are Sira marmas according to Shusruta, and Dhamanee marma according to Vagbhata.

Sadyah pranaharam. (4″ in extent).

Description :—

Ghranasrothrakshijihwasantharpaneenam siranam madhye sirasannipathah

Sringatakani thani chathwari marmani thathrapi sadyo maranam.

The situation of these marmas is on the surface of the brain corresponding to the location of nerve centres (vide

below) which, consisting of nerve cells and fibres (siras), are responsible for the functions of speech (Broca's centre), vision, hearing, taste and smell. Injury to any one or more of these four, may cause trauma to the nearest basal ganglia and thereby cause death.

Anatomical structures corresponding to this marma :—

Centres on the surface of the brain, viz :—

1. For speech (Broca's centre).
2. For vision (visuo-sensory and visuo-psychic).
3. For hearing.
4. For taste and smell.

N. B.—The Broca's centre, only on one side, will be active; the one on the other side will be dormant. In right handed persons, the left Broca's centre will be developed and educated and vice versa.

Treatment.

Do dhara by mixing equal quantities of oil and ghee,

The rest of the treatment is same as that of Avartha marma.

ADHIPATHI MARMA.

This is a sandhi marma.

Sadhyah pranaharam, (½″ in extent).

Description :—

Masthakabyantharathoparishtath sirasandhi sannipathaha romavartho adhipathisthathrapi sadyo maranam.

The situation of this marma is within the cranial vault. It corresponds to an area, called Medulla Oblongata (adhipathi) in the mid-brain nearer its surface, where the ten cranial nerves (siras) of both the sides, take their origin,

as nuclei from the middle line (sandhi) appearing as if hairs spread out in a semicircular manner on either side.

There are also the chief vital centres in the Medulla Oblongata. Injury to any one of the above, causes immediate death by failure of circulation, respiration and fall of blood pressure etc.

Anatomical structures corresponding to this marma:—

1. Medulla Oblongata with its vital centres.
    (a) Cardiac centre.
    (b) Respiratory centre.
    (c) Vasomotor centre.
    (d) Other centres.

2. Orgin (nuclei) of the ten cranial nerves.

Treatment.

For pain :—

Do dhara with equal quantities of oil and ghee.

For pain and swelling:—Lepam.

Churn ghee in chathuksheeri kashayam and apply that ghee externally.

For head-ache:—Lepam.

Rub udumbaram and thriphala with milk, mix with butter and apply externally.

For all marma-vikarams:—Ghritham.

Prepare kashayam with draksha and yasthi and by adding milk, ikshu swarasam and ghee, prepare ghritham with draksha and yasthi as kalkams.

For healing the wound:—Lepam.

Rub useeram, patram, valakam, chandanam and aswagandha with the juices of varee, bala-moolam, gudoochi,

bhoothalam, and prepare lepam by adding oil, ghee and milk (four times the quantity of ghee).

For paravasyam :—Nasyam.

(*a*) Put a few drops, into both the nostrils, the swarasam of dronapushpi or sankhapushpi.

(*b*) Do dhmana nasyam with rasnadi choornam (to get over the unconsciosness of the patient by stimulation).

N. B.—Nasyam as said above is also recommended in paravasyam occuring in injury to any other marma.

MARMA GUTIKA (**Bhrihath**). **Prescription from Sahasrayogam.**

I.	(*a*)	Vidaree satwam.	One Kuduvam (20 tolas`
		Jeevanthee "	"
		Sathavaree "	"
		Mustha "	"
		Varahee "	"
		Thugaksheeri satwam (Arrow Root)	"
		* Kuruvi Kizhangu satwa.	"
		Amalakee satwam.	"
		Sariba satwam.	"
		Gudoochi satwam.	"
		Doorva satwam.	"
	(*b*)	Yastee	5 Palams
		Chandanam	"
		Raktha chandanam	"
II.		Sahasravedhi	2½ tolas.
		Kannaram	"
		Gomootra Silajit	"
		$ Ksheera Nirvishi.	"
		* Garuda Pacha.	"

Take I and II and grind with the following Kashayams.

1. Thalanelli (Malabar Prasaranee)
*Kozhuppa (Malabar)
*Ponnamkani (Malabar)

Moorva (Malabar Perumkurumba)
Nalpamara buds. The buds of Chathuksheeri Vrikshas (each separate)
Kathaka beejam.
Gokshuram.
Hreeberam
Useeram.

Take 10 tolas each. Make a decoction with twelve prasthams of water (480 ounces.) and reduce it to 1/8 ($1\frac{1}{2}$ prastham). Grind the medicine with the decoction, then prepare the kashayam of the following.

III. 1. Chathuksheeri thwak.
2 Lodhra thwak.
3. Bark of Jambu (jambu thwak)
* 4. Pullani samoolam (Malabar)
* 5. Bark of Pezhu. (Malabar)
* 6. Bark of karimkara.
7. Bark of Daruharidra.
8. Root of Pashana-bhedi 8 palams (40 tolas).

Take altogether 10 tolas of 1 to 7, mix with 8 and make kashayam with 16 prasthams of water as before and grind well.

Grind this again with the following kashayam.

Masham. }
Mudgam. } Take three together 100 tolas. Make kashayam and then grind well as before.
Ela. }

*These have no Sanskrit names. They can be had from Malabar.

$ This is not known and is not used.

It may be preserved in the form of pills of amalaki or harithakee size, to be used externally, rubbed in any one of the following:—white of an egg, butter, ghee, milk, sathadhowthaghirtham according to the condition of vranasophams and vranams.

MARMA GUTIKA (Laghu) from Sahasrayogam.

I. (*a*) Amalaki satwam
Sathavari satwam
Gudoochi ,,
Mustha ,,
Musali ,,
*Vanakandam ,, (Kaattukizhangu)
*Karuvi kizhangu satwam. (Arrow Root)
Chandanam.
Raktha chandanam.
Yashtee.

Each one Kudavam (20 tolas.)

(*b*) Kannaram five tolas.
Gomootra Silajit ,,

Mix the above together well, and grind with Nalpamara kashayam.

Take a & b each 80 tolas (one prastham) and make Kashayam.

II. (*a*) Doorva.

‡ Cheroola, used in Malabar as substitute for the root of Pashana Bhedi.

Root of Thalanelly (Malabar Prasaranee)
Thrina Panchamoolams.

Take Each of (a) 20 tolas (4 Palams)

(*b*) Hreeberam
Useeram
Gokshuram
Kathaka Beejam.

Take each of (b) 4 palams (20 tolas) and make with (a) & (b) Kashayam No. II.

III.	Masham	80 tolas
	Mudgam	"

Make Kashayam of No. III.

N.B.—Make each Kashayam separately.

Grind with each of the above Kashayams separately. First grind with the first kashayam till it is finished and then with the second and then with the third. After finishing all these kashayams make Gutika.

*These can be had from Malabar.

‡Cheroola has no sanskrit name. But it is available in Madras also.

It may be preserved in the form of pills of amalaki or hareethakee size to be used externally, rubbed in any one of the following:—white of egg, butter, ghee, milk, sathadhowthaghritham, etc., according to the condition of vranasophams and vranams.

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ERRATA.

Page No.	Line No.	For	Read
I	18	placed	places
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II	11	at the end.	in the next page.
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